SAMSUNG

TFT-LCD MONITOR

Chassis	Model
MH17WS	730MW

SERVICE Manual

TFT-LCD MONITOR

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1 Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC Power Jack before servicing.

1-1-2 Servicing the LCD Monitor

1. PBA and panel components are very sensitive to static electricity. Always wear anti-static gloves when handling PBA or panel. Use an anti-static wrist strap and/or work bench. Keep parts in protective bags until ready for use.
2. Do not use or apply excessive force when handling panel. Damage to liquid crystal display may result from improper handling.

1-1-3 Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
   WARNING: Do not use an isolation transformer during this test.
   Use a leakage current tester or a metering system that complies with American National Standards Institute (*ANSI C101.1, Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

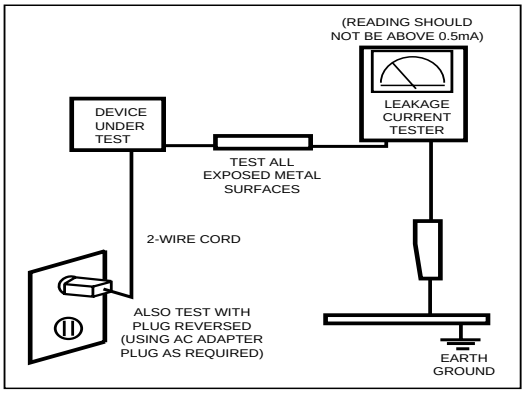


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4 Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by ⚠ on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2 Servicing Precautions

WARNING: **An electrolytic capacitor installed with the wrong polarity might explode.**

Caution: **Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.**

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
   (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Electrostatically Sensitive Devices (ESD) Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

2 Product Specifications

2-1 Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 17-Inch viewable, 0.2895 mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 60 kHz (Automatic) Vertical : 56 Hz ~ 75 Hz (Automatic)	
Display Colors	16.7 Million colors	
Maximum Resolution	Horizontal : 1280 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p ± 5% positive at 75 Ω, internally terminated	
Input Sync Signal	Type : Separate H/V Sync-on-Green, automatic synchronization without external switch of sync type Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	372.7 mm / 224.5 mm	
AC power voltage & Frequency	AC 90 ~ 264 Volts, 60/ 50 Hz ± 3 Hz	
Power Consumption	40 W (Max), (2W Power)	
Dimensions (W x D x H) Set (W x D x H) Package (W x D x H)	 20.7 x 6.2 x 13.4 Inches (526 x 157.2 x 341 mm) 20.7 x 2.4 x 11.5 Inches (526 x 60.3 x 292 mm) State of stand disassembled 24.3 x 8.3 x 16.3 Inches (617 x 212 x 414 mm)	
Weight	5.1 Kg (11.9 lbs)State of stand installed / 7.2 Kg (15.9 lbs)	
Environmental Considerations	Operating Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -13 °F ~ 113 °F (-25 °C ~ 45 °C) Storage Humidity : 5 % ~ 95 %	
TV System	Tuning	Frequency Synthesize
	Color	NTSC
	Sound	KOREA
Autenna Input	75Ω, Coaxial Cable	
Sound Characteristic	– MAX Internal speaker Out : Right => 5 W Left => 5 W	
	– BASS Control Range : -12 dB ~ + 12 dB – TREBLE Control Range : -12 dB ~ + 12 dB – Headphone Out: RF => 5 mW max (400 m Vrms) A/V => 10 mW max (580 Vrms), Max Input sound : -9 dBm – Output Frequency (TBD) : RF => 80 Hz ~ 15 kHz A/V => 80 Hz ~ 20 kHz	

2-2 Pin Assignments

2-2-1 15 Pin signal cable connector

Sync Type / Pin No.	15 Pin signal cable connector	
	Separate H/V	Composite H/V
1	Red	Red
2	Green	Green
3	Blue	Blue
4	GND	GND
5	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red
7	GND-Green	GND-Green
8	GND-Blue	GND-Blue
9	No Connection	No Connection
10	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND
12	DDC Data	DDC Data
13	Horizontal Sync	H/V Sync
14	Vertical Sync	Not Used
15	DDC Clock	DDC Clock

2-2-2 DVI / PC

Pin No.	30 Pin Signal Cable (DVI Analog)	Pin No.	30 Pin Signal Cable (DVI Analog)
1	RX2+	16	GND
2	RX2-	17	Check ·D-Sub
3	GND	18	GND
4	RX1+	19	DDC_5V
5	RX1-	20	DDC_5V
6	GND	21	GND
7	RX0+	22	V/Sync
8	RX0-	23	GND
9	GND	24	H/Sync
10	RXC+	25	GND
11	RXC-	26	Blue
12	GND	27	GND
13	DDC (Clock)	28	Green
14	DDC (Data)	29	GND
15	GND	30	Red

2-3 Timing Chart

This section of the service manual describes the timing that the computer industry recognizes as standard for computer-generated video signals.

Table 2-1 Timing Chart

Timing No. Originator Mode Name Resolution (HxV)	 VESA 1280/60Hz 1280x768			
HORIZONTAL Frequency Total time Active time Blank time Border (L / R) Data time Front porch Sync. width Back porch Sync. polarity	 47.776kHz 19.321μs 16.101μs 4.830μs 0.000μs 16.101μs 0.805μs 1.610μs 2.415μs Negative	blank	blank	blank
VERTICAL Frequency Total time Active time Blank time Border (T / B) Data time Front porch Sync. width Back porch Sync. polarity	 59.870Hz 16.557ms 16.075ms 0.629ms 0.000ms 16.075ms 0.063ms 0.147ms 0.419ms Positive	blank	blank	blank
Dot Clock	79.5MHz			
Sync. Type Scan Type	Separate N/I			

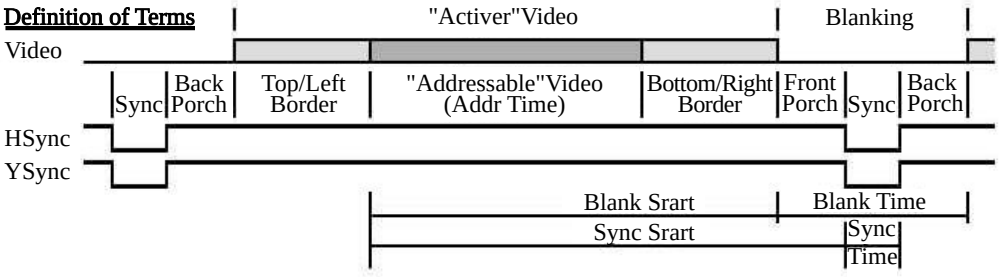


Table 2-2 Timing Chart

Timing No.	1	2	3	11	17
Originator	IBM	IBM	IBM	VESA	VESA
Mode Name	VGA1	VGA2	VGA3	640/72Hz	640/75Hz
Resolution (HxV)	640x350	720x400	640x480	640x480	640x480
HORIZONTAL					
Frequency	31.469kHz	31.469kHz	31.469kHz	37.861kHz	37.500kHz
Total time	31.778μs	31.777μs	31.778μs	26.413μs	26.667μs
Active time	26.058μs	26.058μs	26.058μs	20.825μs	20.317μs
Blank time	5.720μs	5.720μs	5.720μs	5.588μs	6.350μs
Border (L / R)	0.318μs	0.318μs	0.318μs	0.254μs	0.000μs
Data time	25.422μs	25.422μs	25.422μs	20.317μs	20.317μs
Front porch	0.318μs	0.318μs	0.318μs	0.508μs	0.508μs
Sync. width	3.813μs	3.813μs	3.813μs	1.270μs	2.032μs
Back porch	1.589μs	1.589μs	1.589μs	3.810μs	3.810μs
Sync. polarity	Positive	Negative	Negative	Negative	Negative
VERTICAL					
Frequency	70.086Hz	70.087Hz	59.940Hz	72.809Hz	75.000Hz
Total time	14.268ms	14.268ms	16.683ms	13.735ms	13.333ms
Active time	11.504ms	13.155ms	15.761ms	13.100ms	12.800ms
Blank time	2.764ms	1.113ms	0.922ms	0.635ms	0.533ms
Border (T / B)	0.191ms	0.222ms	0.254ms	0.211ms	0.000ms
Data time	11.122ms	12.711ms	15.253ms	12.678ms	12.800ms
Front porch	0.985ms	0.191ms	0.064ms	0.026ms	0.027ms
Sync. width	0.064ms	0.064ms	0.064ms	0.079ms	0.080ms
Back porch	1.716ms	0.858ms	0.794ms	0.528ms	0.427ms
Sync. polarity	Negative	Positive	Negative	Negative	Negative
Dot Clock	25.175MHz	28.322MHz	25.175MHz	31.500MHz	31.500MHz
Sync. Type	Separate	Separate	Separate	Separate	Separate
Scan Type*	N/I	N/I	N/I	N/I	N/I

Table 2-3 Timing Chart

Timing No.	32	33	12	13	14
Originator	MAC	MAC	VESA	VESA	VESA
Mode Name	640/67Hz	832/75Hz	800/56Hz	800/60Hz	800/72Hz
Resolution (HxV)	640x480	832x624	800x600	800x600	800x600
HORIZONTAL					
Frequency	35.000kHz	49.726kHz	35.156kHz	37.879kHz	48.077kHz
Total time	28.571μs	20.110μs	28.444μs	26.400μs	20.800μs
Active time	21.164μs	14.524μs	22.222μs	20.000μs	16.000μs
Blank time	7.407μs	5.586μs	6.222μs	6.400μs	4.800μs
Border (L / R)	0.000μs	0.000μs	0.000μs	0.000μs	0.000μs
Data time	21.164μs	14.524μs	22.222μs	20.000μs	16.000μs
Front porch	2.116μs	0.559μs	0.667μs	1.000μs	1.120μs
Sync. width	2.116μs	1.117μs	2.000μs	3.200μs	2.400μs
Back porch	3.175μs	3.910μs	3.556μs	2.200μs	1.280μs
Sync. polarity	Negative	Negative	Positive or Negative	Positive	Positive
VERTICAL					
Frequency	66.667Hz	74.551Hz	56.250Hz	60.317Hz	72.188Hz
Total time	15.000ms	13.414ms	17.778ms	16.579ms	13.853ms
Active time	13.714ms	12.549ms	17.067ms	15.840ms	12.480ms
Blank time	1.286ms	0.865ms	0.711ms	0.739ms	1.373ms
Border (T / B)	0.000ms	0.000ms	0.000ms	0.000ms	0.000ms
Data time	13.714ms	12.549ms	17.067ms	15.840ms	12.480ms
Front porch	0.086ms	0.020ms	0.028ms	0.026ms	0.770ms
Sync. width	0.086ms	0.060ms	0.057ms	0.106ms	0.125ms
Back porch	1.114ms	0.784ms	0.626ms	0.607ms	0.478ms
Sync. polarity	Negative	Negative	Positive or Negative	Positive	Positive
Dot Clock	30.240MHz	57.284MHz	36.000MHz	40.000MHz	50.000MHz
Sync. Type	Separate Composite	Separate Composite	Separate	Separate	Separate
Scan Type*	N/I	N/I	N/I	N/I	N/I

Table 2-2 Timing Chart

Timing No.	18	15	16	19
Originator	VESA	VESA	VESA	VESA
Mode Name	800/75Hz	1024/60Hz	1024/70Hz	1024/75Hz
Resolution (HxV)	800x600	1024x768	1024x768	1024x768
HORIZONTAL				
Frequency	46.875kHz	48.363kHz	56.476kHz	60.023kHz
Total time	21.333μs	20.677μs	17.707μs	16.660μs
Active time	16.162μs	15.754μs	13.653μs	13.003μs
Blank time	5.171μs	4.923μs	4.054μs	3.657μs
Border (L / R)	0.000μs	0.000μs	0.000μs	0.000μs
Data time	16.162μs	15.754μs	13.653μs	13.003μs
Front porch	0.323μs	0.369μs	0.320μs	0.203μs
Sync. width	1.616μs	2.092μs	1.813μs	1.219μs
Back porch	3.232μs	2.462μs	1.920μs	2.235μs
Sync. polarity	Positive	Negative	Negative	Positive
VERTICAL				
Frequency	75.000Hz	60.004Hz	70.069Hz	75.029Hz
Total time	13.333ms	16.666ms	14.272ms	13.328ms
Active time	12.800ms	15.880ms	13.599ms	12.795ms
Blank time	0.533ms	0.786ms	0.673ms	0.533ms
Border (T / B)	0.000ms	0.000ms	0.000ms	0.000ms
Data time	12.800ms	15.880ms	13.599ms	12.795ms
Front porch	0.021ms	0.062ms	0.053ms	0.017ms
Sync. width	0.064ms	0.124ms	0.106ms	0.050ms
Back porch	0.448ms	0.600ms	0.513ms	0.466ms
Sync. polarity	Positive	Negative	Negative	Positive
Dot Clock	49.500MHz	65.000MHz	75.000MHz	78.750MHz
Sync. Type	Separate	Separate	Separate	Separate
Scan Type*	N/I	N/I	N/I	N/I

3 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the MH17WS LCD Monitor.

⚠ **WARNING: This monitor contains electrostatically sensitive devices. Use caution when handling these components.**

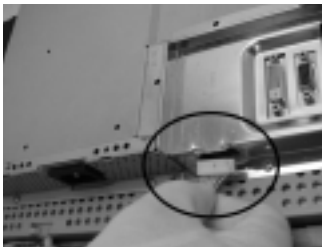
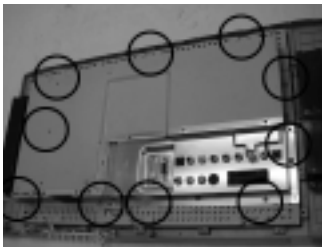
3-1 Disassembly

⚠ **Cautions: 1. Disconnect the monitor from the power source before disassembly.**

2. When IP-BOARD has a defect, the whole PCB ASS'Y, not a single part, should be replaced.

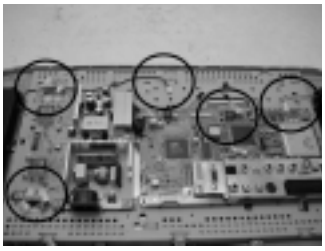
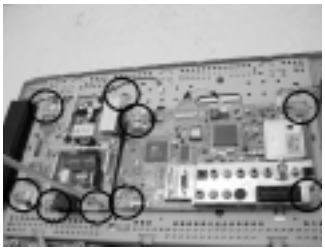
3. R/Cover opening jig : BH81-00001A

1. Place the monitor face down on cushioned table. Remove 3 screws from girp on the stand and remove back cover. While pressing the back cover, lift up the stand. **(See Illustrations)**

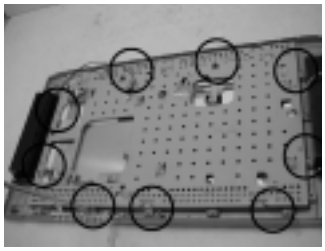



2. Disconnect function cable from the shield and remove 11 screws from the shield.

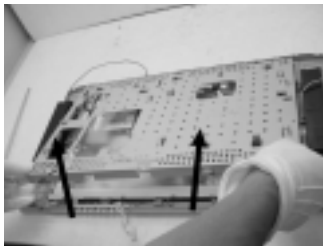
3. Lift up the shield PCB and disconnect inverter holder from the PCB board.

4. Disconnect 2 speaker cables, LVDS cable and inverter calbe from the PCB board and remove 9 screws from the PCB board.



5. Lift up the PCB board and remove 9 screws from the shield panel.



6. Lift up the shield panel and disconnect panel from the cover front.

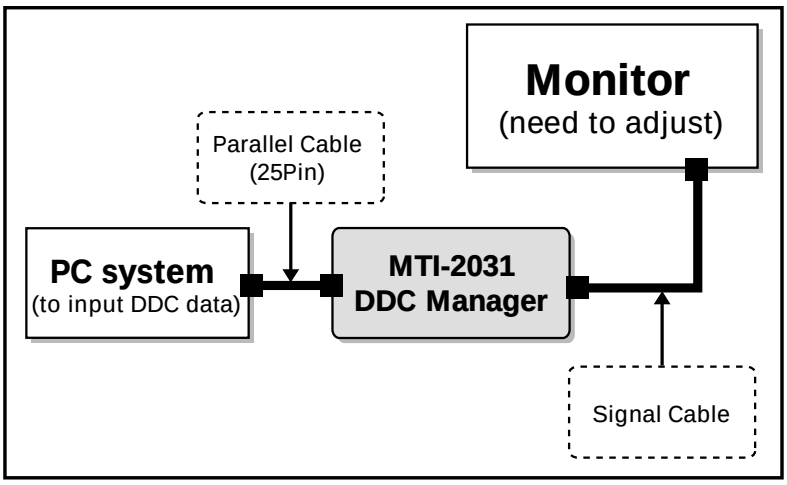
3-2 Reassembly

Reassembly procedures are in the reverse order of disassembly procedures.

4 Alignments and Adjustments

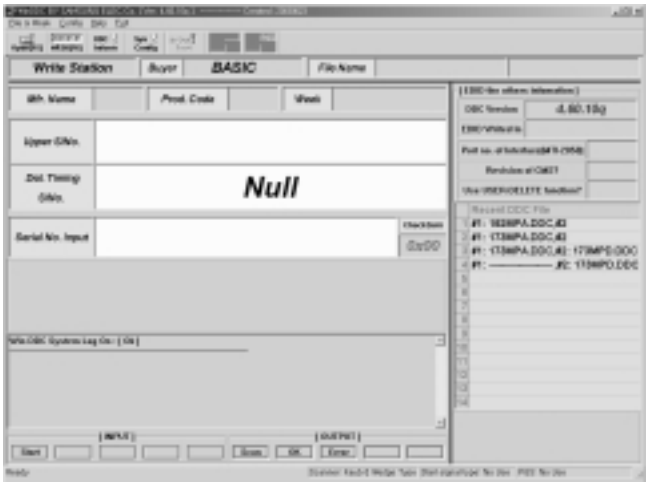
This section describes to adjust LCD monitor after replacing EEPROM, Main PBA or Panel.

4-1 DDC jig installation

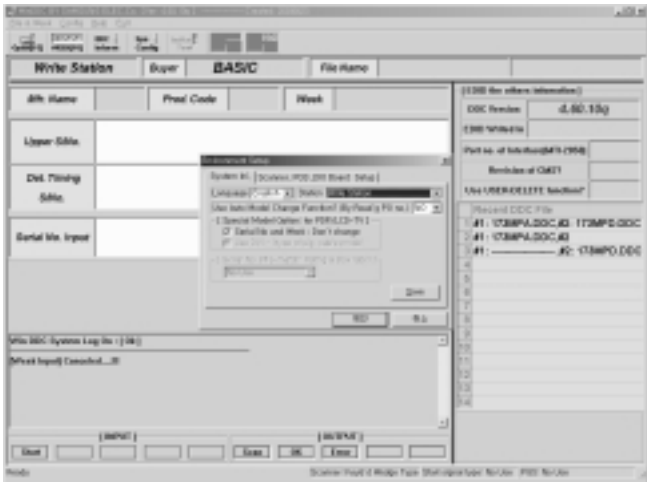


* Please use DVI cable connection adapter for DVI input.

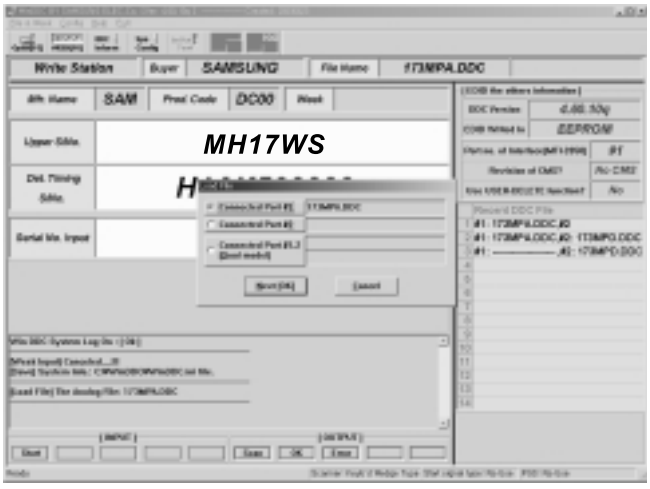
4-2 How to execute DDC



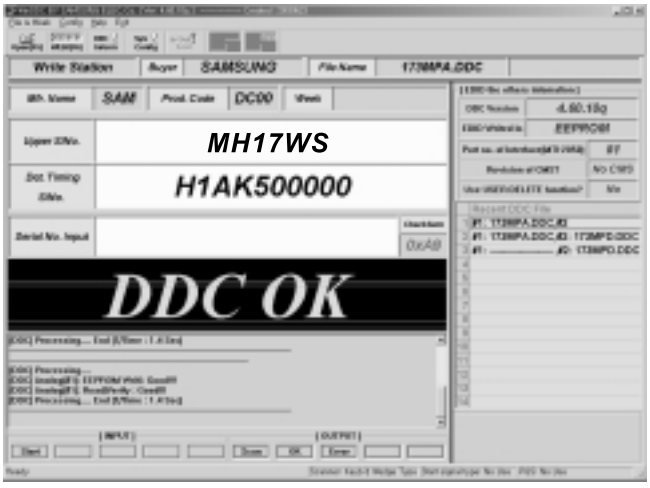
1. Execute "WinDDC.exe"



2. Click “Sys Config”
   Select “Station : Write station”.
   Check “Serial No and Week : Don’t change”
   Click “Save”



3. Click “Open” icon.
   Select “Connected Port #1” and Next “OK”.
   * File Name - 730MWA.DDC : Analog
   730MWD.DDC : DVI
   Press enter key on your keyboard.



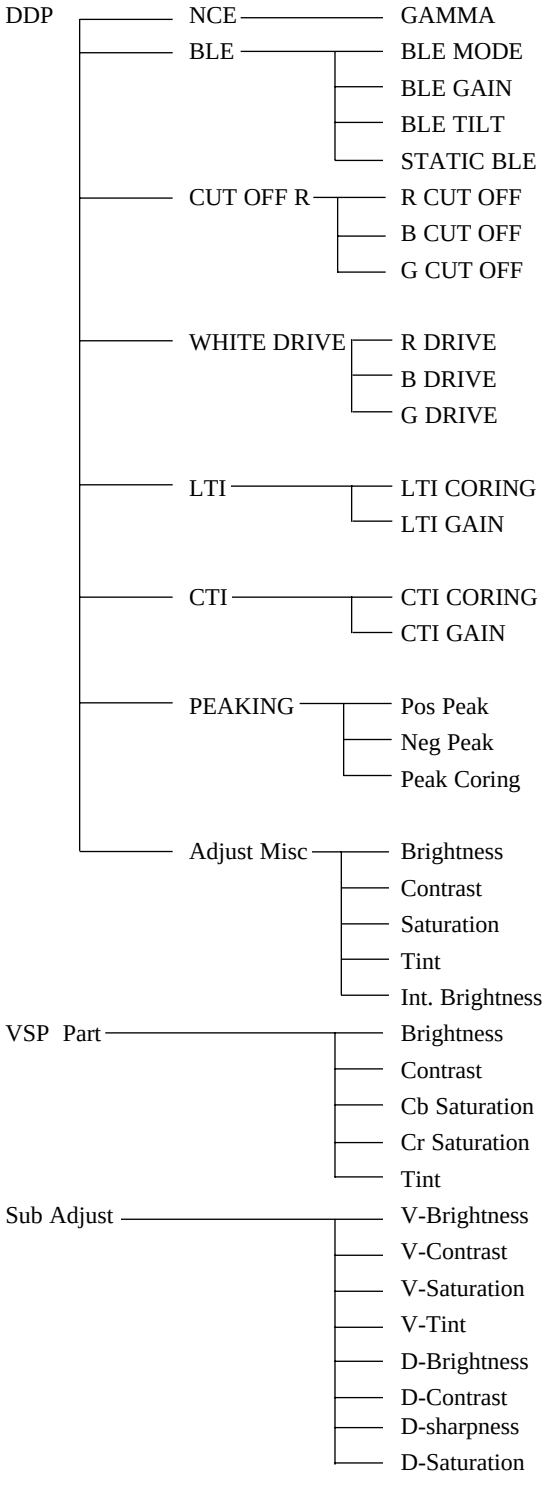
4. Confirm the “DDC OK”.

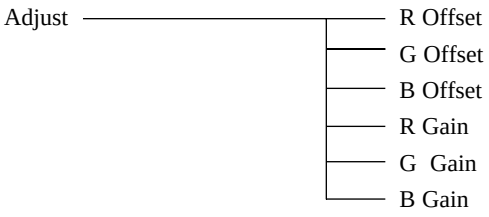
4-3 Factory Mode Adjustments

4-3-1 Factory Mode Admission

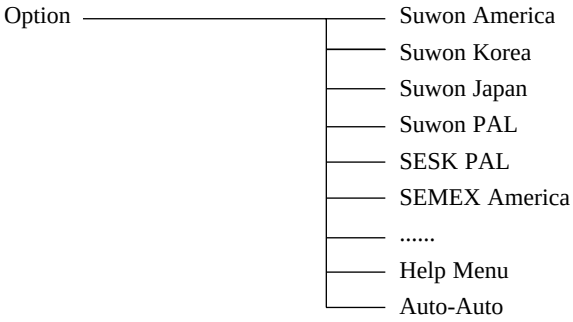
Power off → MUTE → 1 → 8 → 2 → Power on

4-3-2 Factory Mode OSD





PC/DTV Auto Color



Check Sum

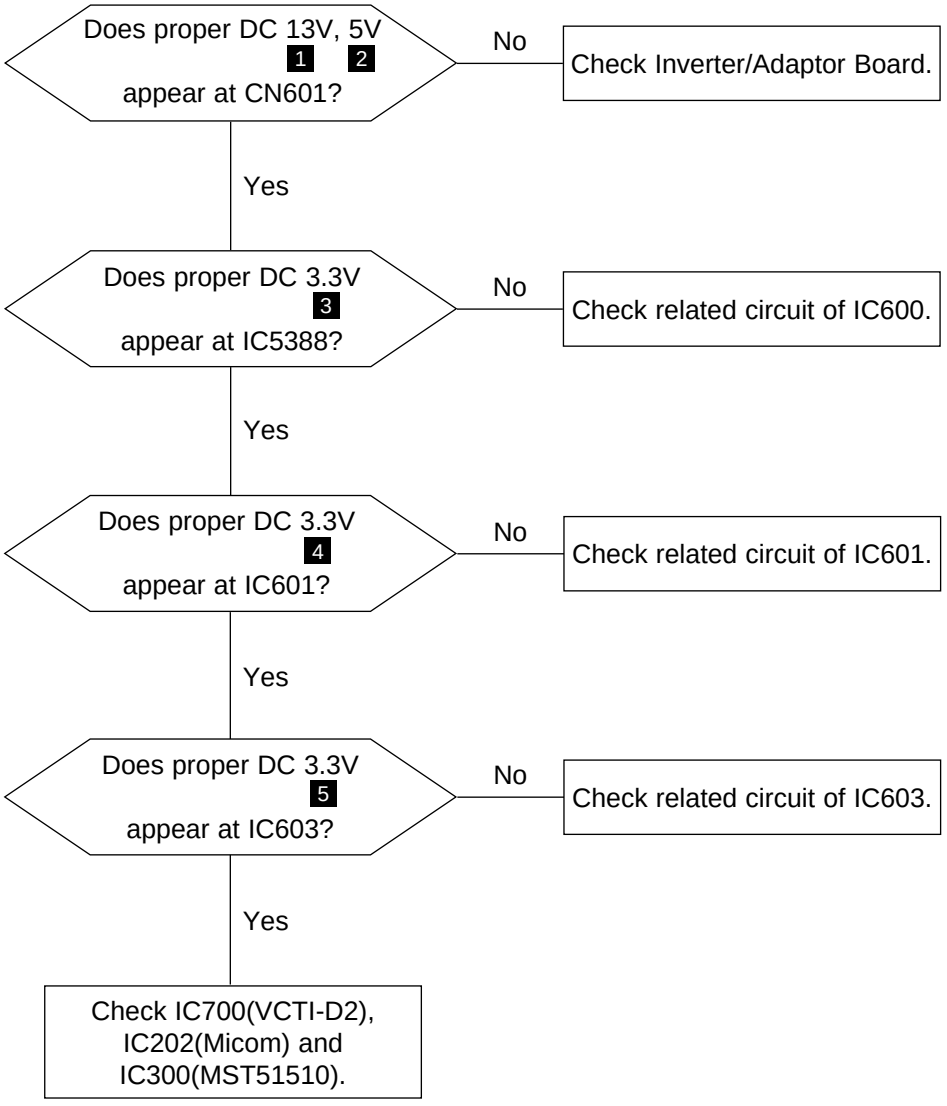
Panel Information

Reset

Bus-Stop

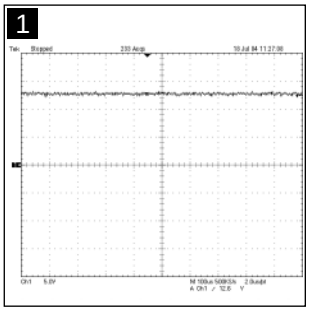
5 Troubleshooting

5-1 No Power

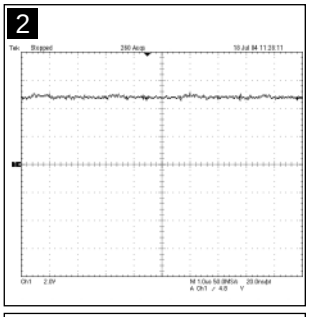


WAVEFORMS

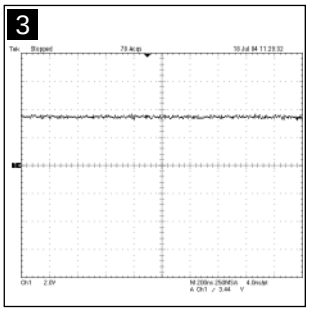
1



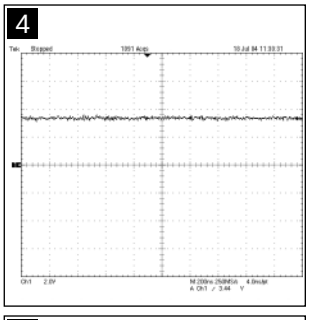
2



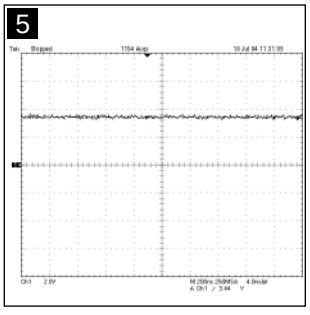
3



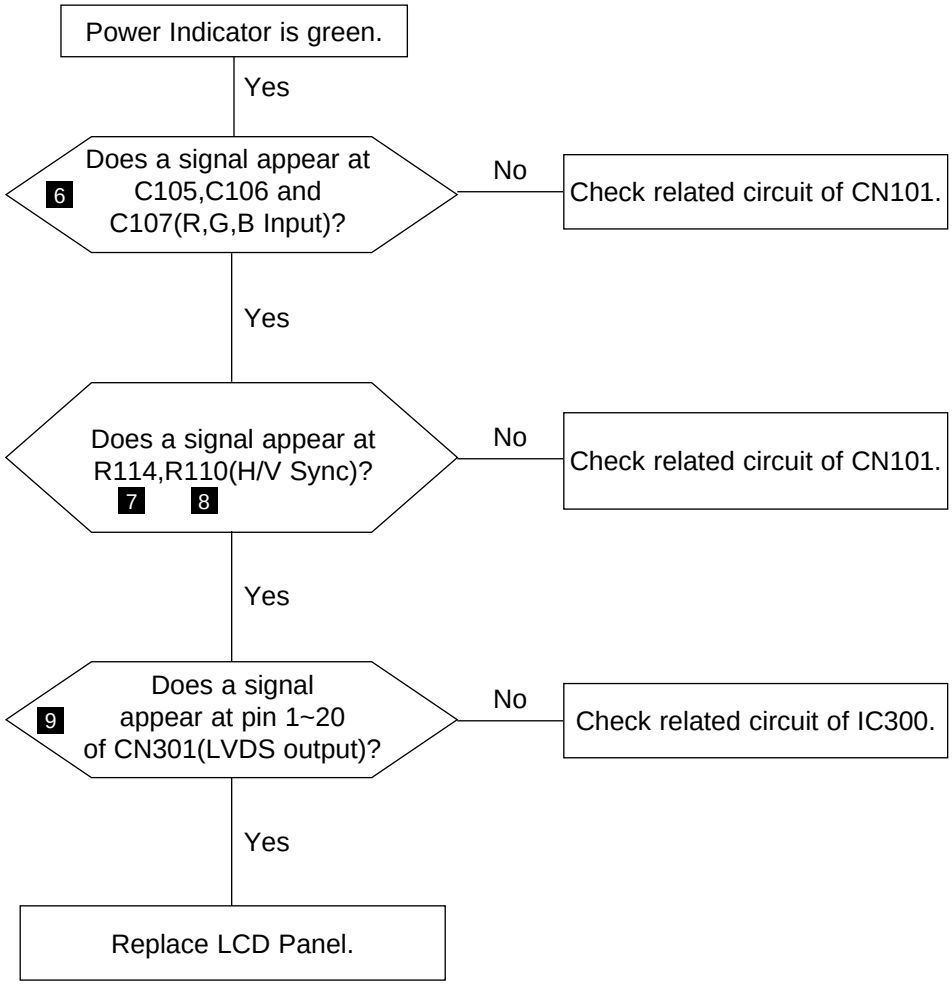
4



5

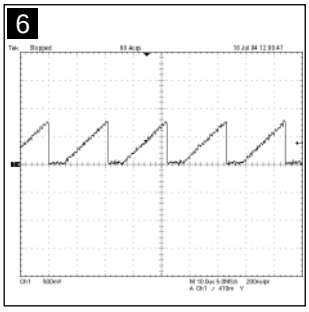


5-2 No Video (PC Signal)

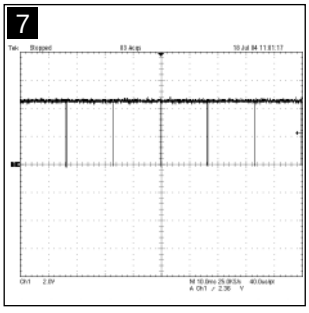


WAVEFORMS

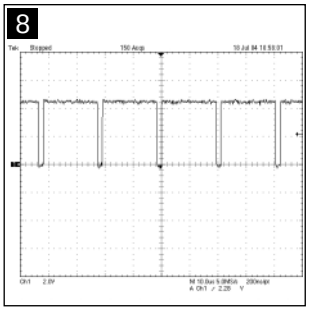
6



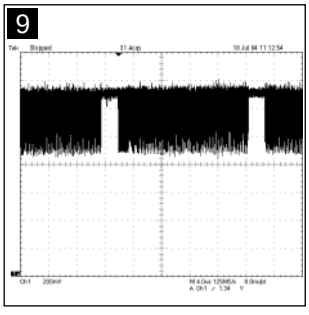
7



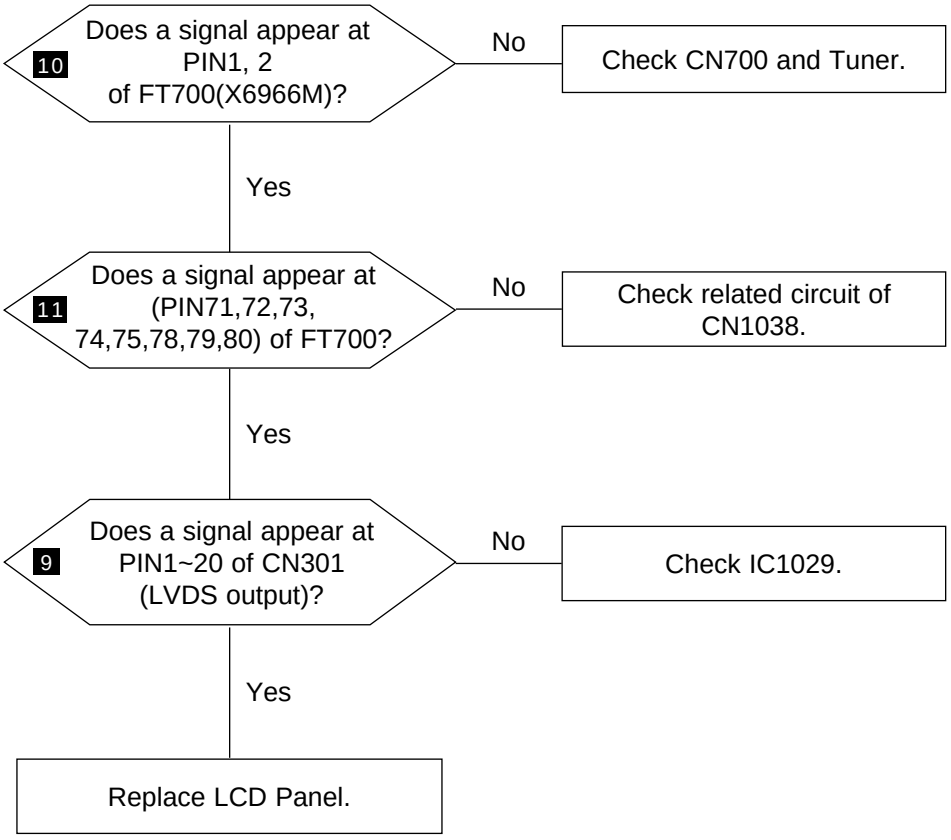
8



9

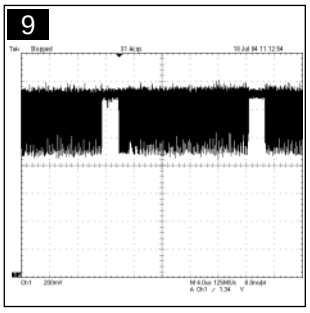


5-3 No Picture (TV)

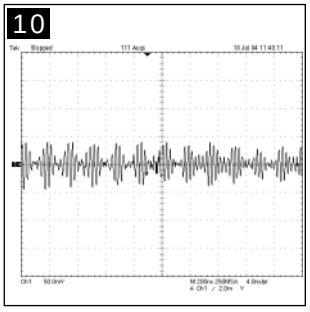


WAVEFORMS

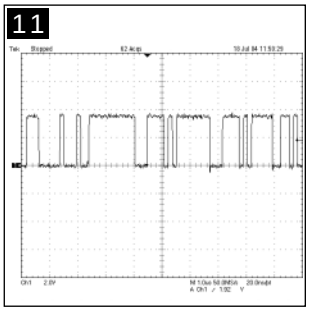
9



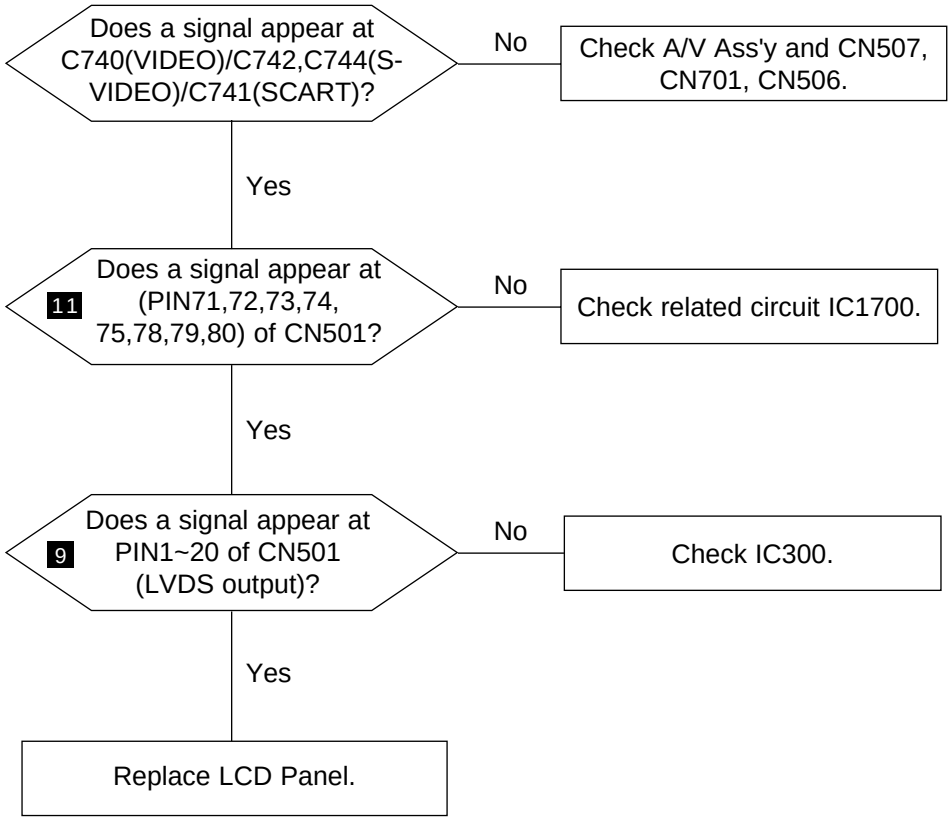
10



11

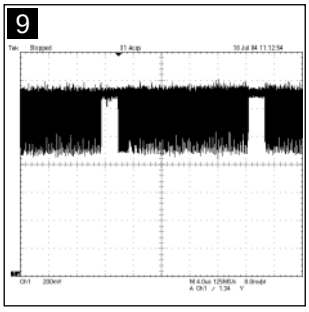


5-4 No Picture (VIDEO/S-VIDEO/SCART)

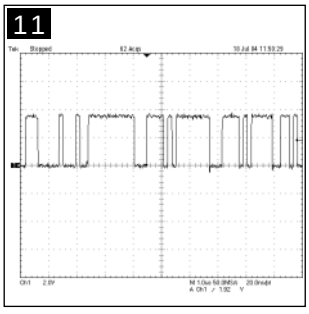


WAVEFORMS

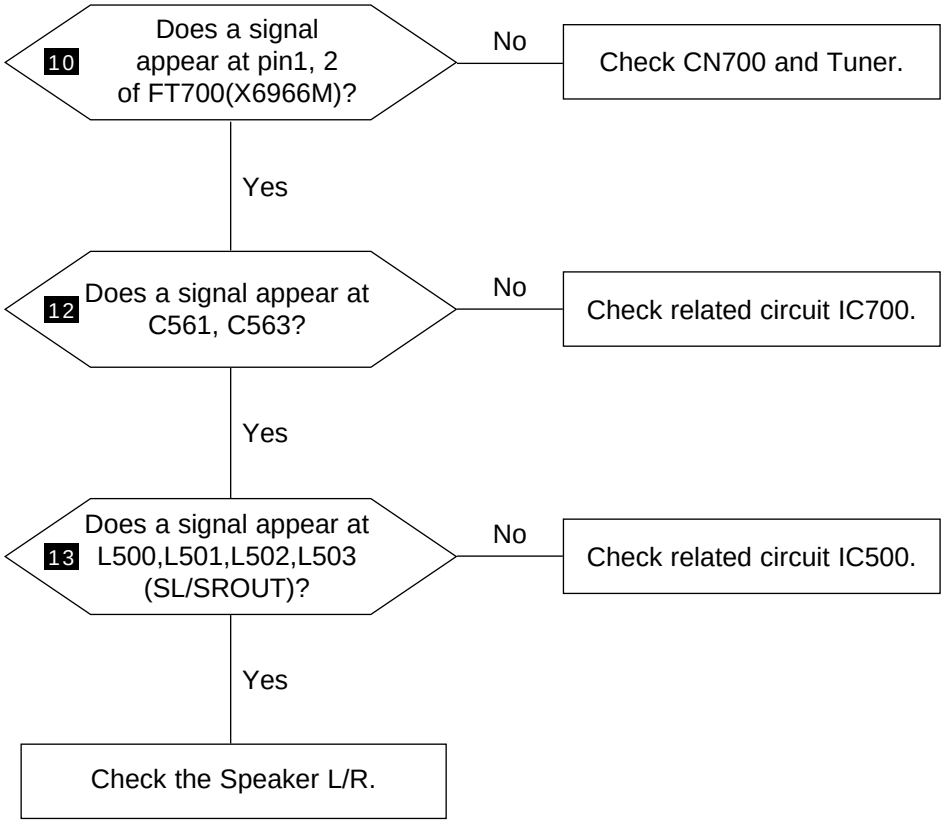
9



11

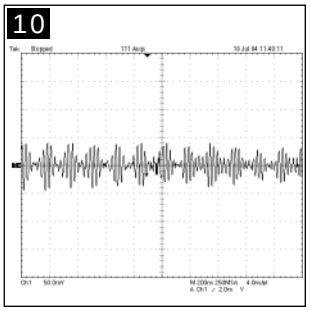


5-5 No Sound(TV)

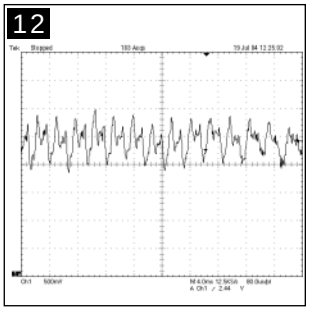


WAVEFORMS

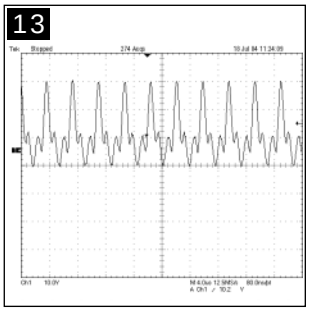
10



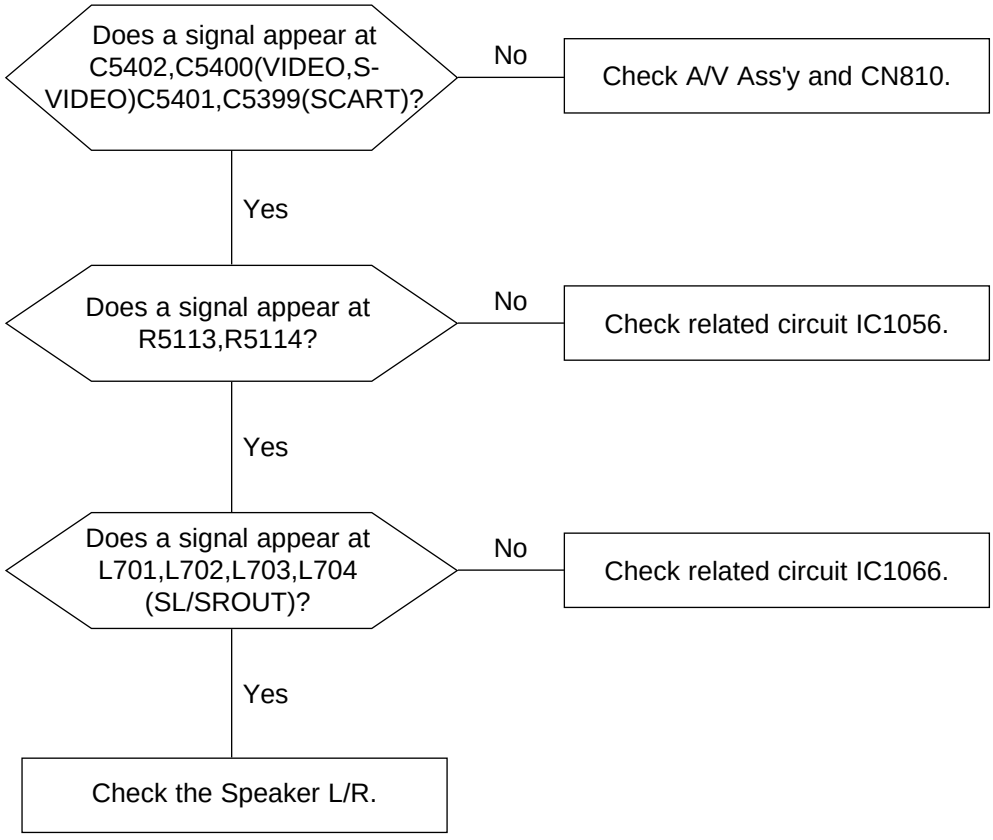
12



13

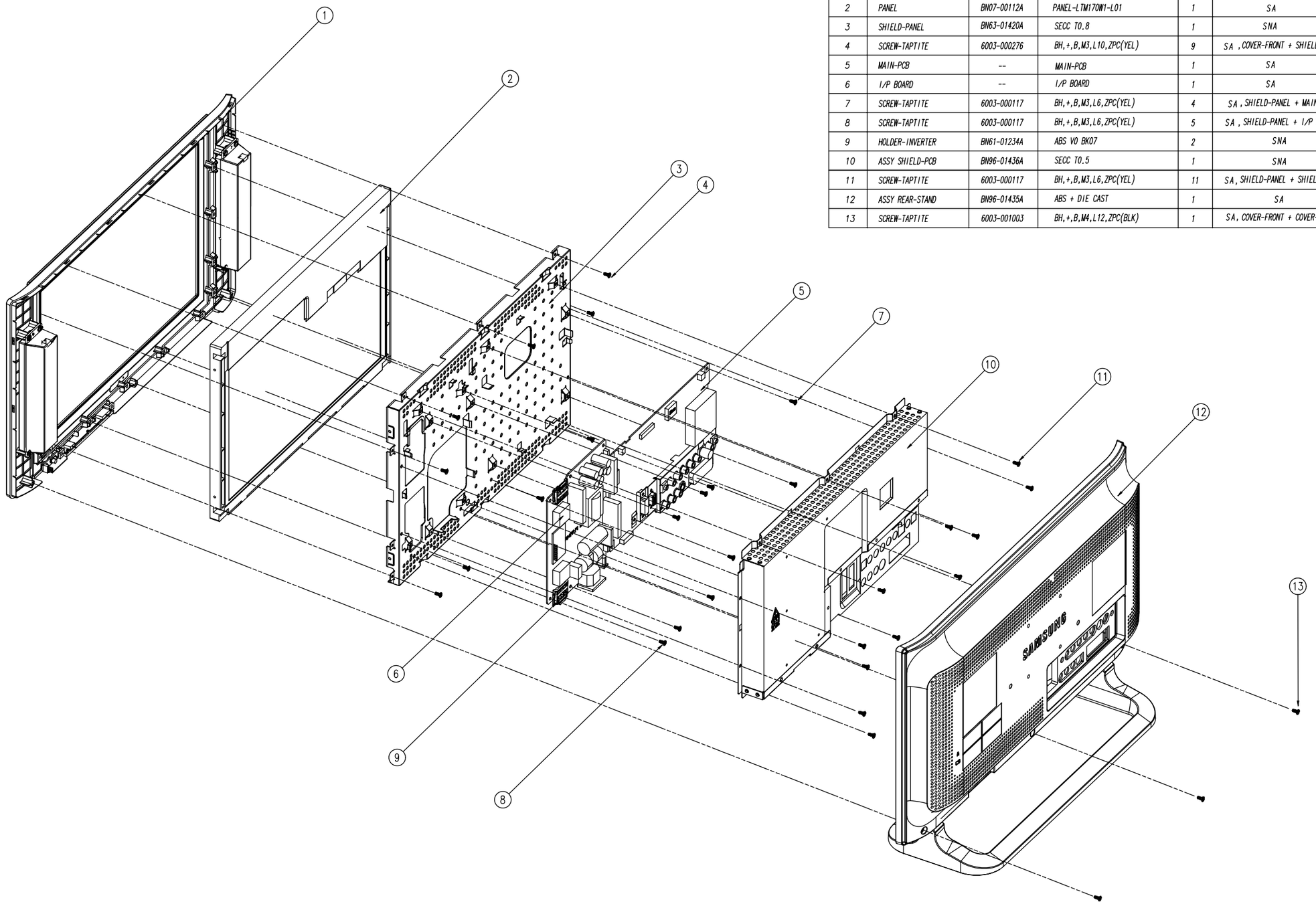


5-6 No Sound(VIDEO,S-VIDEO,SCART)



6 Exploded View and Parts List

✺ You can search for updated part codes through ITSELF web site.
URL : http://itself.sec.samsung.co.kr/



No.	DESCRIPTION	CODE No.	SPECIFICATION	Q'ty	REMARKS
1	ASSY,COVER-FRONT	BN96-01295A	ABS HB GR70 + SILVER & BLACK SPRAY	1	SA
2	PANEL	BN07-00112A	PANEL-LTM170W1-L01	1	SA
3	SHIELD-PANEL	BN63-01420A	SECC T0.8	1	SNA
4	SCREW-TAPTITE	6003-000276	BH,+,B,M3,L10,ZPC(YEL)	9	SA ,COVER-FRONT + SHIELD-PANEL
5	MAIN-PCB	--	MAIN-PCB	1	SA
6	I/P BOARD	--	I/P BOARD	1	SA
7	SCREW-TAPTITE	6003-000117	BH,+,B,M3,L6,ZPC(YEL)	4	SA , SHIELD-PANEL + MAIN-PCB
8	SCREW-TAPTITE	6003-000117	BH,+,B,M3,L6,ZPC(YEL)	5	SA , SHIELD-PANEL + I/P BOARD
9	HOLDER-INVERTER	BN61-01234A	ABS V0 BK07	2	SNA
10	ASSY SHIELD-PCB	BN96-01436A	SECC T0.5	1	SNA
11	SCREW-TAPTITE	6003-000117	BH,+,B,M3,L6,ZPC(YEL)	11	SA, SHIELD-PANEL + SHIELD-PCB
12	ASSY REAR-STAND	BN96-01435A	ABS + DIE CAST	1	SA
13	SCREW-TAPTITE	6003-001003	BH,+,B,M4,L12,ZPC(BLK)	1	SA, COVER-FRONT + COVER-REAR

Memo

7 Electrical Parts List

❋ You can search for updated part codes through ITSELF web site.
URL : http://itself.sec.samsung.co.kr/

7-1 Main PCB Parts

Level	Loc. No.	Code No.	Description	Specification	Remarks
0	MH17WS				
1	S4-MH17WS	-	1	LTM170W1-L01 ZPD	-
3	BN94-00572A	-	ASSY PCB MAIN	MH17WS	SNA
4	0204-002420	CIS3	SOLVENT	1M-1000,C3H70H,96,-,-	SNA
4	0204-002426	CIS2	FLUX	DF-201TVS,MIX,0.820,FLUX 13%, 14KG,-	SNA
4	1203-000165	IC608	IC-POSI.ADJUST REG.	78R12,TO-220,4P,-,PLASTIC,11.7/12.3V,1.5W,-20TO+80C,1A,-,ST	SA
4	2904-001179	FT700	FILTER-SAW	36.125MHz,-,32.65-39.6MHz/0.5dB,SIP5K,+-0MHz/21.8dB,31.25MHz/37dB	SA
4	3701-001224	CN102	CONNECTOR-DVI	24P,3R,FEMALE,STRAIGHT,AU10U	SA
4	3701-001302	CN101	CONNECTOR-DSUB	15P,3R,FEMALE,STRAIGHT,AUF	SA
4	3705-001331	CN709	CONNECTOR-COAXIAL	PAL,ADAPTOR(J/J),-,75ohm,-	SA
4	3711-004183	CN200	CONNECTOR-HEADER	BOX,10P,1R,-,ANGLE,SN	SA
4	3711-004712	CN600	CONNECTOR-HEADER	BOX,9P,1R,2mm,STRAIGHT,SN	SA
4	3711-005505	CN700	CONNECTOR-HEADER	NOWALL,11P,1R,2.54mm,ANGLE,SN,WHT	SA
4	3722-000498	CN506	JACK-SCART	21P,-,SN,BLK,NO	SA
4	3722-001061	CN505	JACK-PHONE	1P,3.6PI,AG,BLK,N	SA
4	3722-001734	CN701	JACK-VHS	4P,-,SN,BLK,-	SA
4	3722-001844	CN507	JACK-PIN	3P,8.3MM,AU,YEL/WHT/RED,-	SA
4	3722-001845	CN300	JACK-PIN	3P,8.3MM,AU,GRN/BLU/RED,-	SA
4	3722-001846	CN503	JACK-PIN	2P,8.3MM,AU,WHT/RED,-	SA
4	3722-001931	CN702	JACK-PIN	1P,-,AU,BLK,-	SA
4	3722-002176	CN504	JACK-PHONE	7P/4C,-,SN,L-BLU,-	SA
4	AA63-00864A	CIS7	GASKET	MH17FS,CONDUCTIVE FAB,3mm,5mm,30mm,GRAY,45K,71TSVK-5-3-30-13	SNA
4	BN40-00052A	TUNER	TUNER	TECC0849FL40B(S),NTSC,181CH,38.9MHZ,33V,75 OHM,75 OHM,PHONE-JACK,ASYMM,5V,TR,4V	SA
4	BN41-00392A	TUNER_PCB	PCB SUB	KD17AS,FR4,2L,MP1.0,1.6T,54*13	SNA
4	BN63-00896A	CIS	GASKET	NB21BS,CONDUCTIVE FAB,5MM,15MM,25MM,GRAY,32K,71TSSK-15-5-25-13	SNA
4	BN63-01384A	CIS6	SHIELD-JACK IN	730MP,SPTE,T0.5	SNA
4	BN97-00362X	MICOM	ASSY MICOM	MH17WS	SNA
5	1102-001129	IC202	IC-EPROM	M27W401,512KX8BIT,PLCC,32P,11.35X13.89MM,80NS,3.3V,10%,PLASTIC,-40TO+85C,-,CMOS,	SA
4	BN97-00384J	-	ASSY SMD	MH17WS	SNA
5	0401-001056	D100	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D101	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D103	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D104	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D105	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D111	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D112	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D113	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D114	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D115	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D116	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D117	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D118	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D119	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D706	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D707	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0401-001056	D708	DIODE-SWITCHING	MMBD4148SE,100V,200MA,SOT-23,TP	SA
5	0402-000553	D600	DIODE-RECTIFIER	SS24,40V,2.0A,DO-214AA	SA
5	0403-000579	D102	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D106	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D107	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D108	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D109	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D110	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D122	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D123	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-000579	D124	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200MW,SOT-23,TP	SA
5	0403-001048	D700	DIODE-ZENER	BZX84C16,15.3-17.1V,225mW,SOT-23,TP	SA
5	0403-001048	D701	DIODE-ZENER	BZX84C16,15.3-17.1V,225mW,SOT-23,TP	SA
5	0403-001382	ZD700	DIODE-ZENER	UDZ33B,32.15-33.79V,200MW,SOD-323,TP	SA
5	0403-001435	D121	DIODE-ZENER	QZX363C5V6,5.32-5.88V,200MW,SOT-363,TP	SA
5	0403-001435	D514	DIODE-ZENER	QZX363C5V6,5.32-5.88V,200MW,SOT-363,TP	SA
5	0403-001435	ZD200	DIODE-ZENER	QZX363C5V6,5.32-5.88V,200MW,SOT-363,TP	SA
5	0403-001435	ZD201	DIODE-ZENER	QZX363C5V6,5.32-5.88V,200MW,SOT-363,TP	SA
5	0406-001163	D301	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D302	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	0406-001163	D303	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D500	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D501	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D502	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D503	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D504	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D505	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D506	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D507	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D508	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D509	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D510	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D511	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D512	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D513	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D515	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D516	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D517	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D518	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D703	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D704	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0406-001163	D705	DIODE-TVS	CDS3C05GTA,6.4V/-/-,-,SMD	SA
5	0501-000280	Q512	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23,TP,70	SA
5	0501-000342	Q509	TR-SMALL SIGNAL	KSC1623-Y,NPN,200mW,SOT-23,TP,135-270	SA
5	0501-002080	Q100	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q101	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q300	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q305	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q501	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q502	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q503	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q505	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q507	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q508	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q510	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q511	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q600	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q601	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q602	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q603	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0501-002080	Q700	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	SA
5	0801-002404	IC503	IC-CMOS LOGIC	74VHC4066,ANALOG SWITCH,SOP,14	SA
5	0801-002709	IC702	IC-CMOS LOGIC	74HC373,D FLIP-FLOP,TSSOP,20P,173MIL,OCTAL,TP,PLASTIC,3-STATE,-,0V,-40TO+85C,600	SA
5	0801-002899	IC703	IC-CMOS LOGIC	CD4069UBC,INVERTER,SOIC,14P,8.74x3.99mm,HEX,TP,-,-,-,0.05V,-	
55to+125C,500mW,4V,-		SA			
5	1103-000129	IC100	IC-EEPROM	24C02,256x8,SOP,8P,5x4mm,4.5/5.5V,0to+70C	SA
5	1103-000129	IC101	IC-EEPROM	24C02,256x8,SOP,8P,5x4mm,4.5/5.5V,0to+70C	SA
5	1103-001279	IC201	IC-EEPROM	24C32,4Kx8,SOP,8P,5x4mm,2.5/5.5V,-40to+85C	SA
5	1105-001165	IC302	IC-DRAM	416S1020,512Kx16BITx2,TSOP,50P	SA
5	1201-001983	IC500	IC-AUDIO AMP	TPA3002D2PHP,HTQFP,48P,7X7MM,-,-,PLASTIC,20V,2.7W,-40TO+85C,-,1V/US,-,-,10MV,TR	SA
5	1201-002136	IC504	IC-AUDIO AMP	LM4810,MSOP,8P,3x3mm,DUAL,-,PLASTIC,5.5V,-,-40 to 85C,-,-,-,-,-,TP	SA
5	1203-001212	IC701	IC-VOL. DETECTOR	7029,SOT-89,3P,-,PLASTIC,-,500	SA
5	1203-001488	IC604	IC-POSI.FIXED REG.	7805,T0-252,3P,-,PLASTIC,4.8/5	SA
5	1203-001816	IC605	IC-POSI.FIXED REG.	78M08,TO-252,3P,-,PLASTIC,7.7/8.3V,1.0W,-40TO+85C,0.5A,-,TP	SA
5	1203-002844	IC607	IC-POSI.FIXED REG.	AP1117D-18A,TO-252-3L,3P,6.7X5.6MM,PLASTIC,1.764/1.836V,-,0TO+150C,1A,-,TP	SA
5	1203-002898	IC606	IC-POSI.FIXED REG.	G950T45R,T0-252,3P,6.54x6.46mm,PLASTIC,2.475/2.575V,,0to+125C,1A,,TP	SA
5	1203-003059	IC600	IC-SWITCH VOL. REG.	MP1583,SOIC,8P,4.9x3.9mm,PLASTIC,1.22/21V,-,-40to+85CC,3A,1.194/1.25V,TP	SA
5	1205-002518	IC300	IC-LCD CONTROLLER	MST51510,LQFP,256P,-,PLASTIC,3.3V,-,0to+70C,TR,IC-LCD CONTROLLER	SA
5	2007-000043	R110	R-CHIP	1Kohm,1%,1/10W,TP,1608	SA
5	2007-000043	R114	R-CHIP	1Kohm,1%,1/10W,TP,1608	SA
5	2007-000043	R240	R-CHIP	1Kohm,1%,1/10W,TP,1608	SA
5	2007-000043	R241	R-CHIP	1Kohm,1%,1/10W,TP,1608	SA
5	2007-000043	R628	R-CHIP	1Kohm,1%,1/10W,TP,1608	SA
5	2007-000052	R600	R-CHIP	10Kohm,1%,1/10W,TP,1608	SA
5	2007-000052	R602	R-CHIP	10Kohm,1%,1/10W,TP,1608	SA
5	2007-000067	R565	R-CHIP	15Kohm,1%,1/10W,TP,1608	SA
5	2007-000070	R222	R-CHIP	0ohm,5%,1/10W,TP,1608	SA
5	2007-000070	R366	R-CHIP	0ohm,5%,1/10W,TP,1608	SA
5	2007-000070	R530	R-CHIP	0ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R132	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R133	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R134	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R135	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R136	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R137	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000072	R138	R-CHIP	47ohm,5%,1/10W,TP,1608	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2007-000072	R139	R-CHIP	47ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R101	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R102	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R117	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R118	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R119	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R120	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R123	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R124	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R125	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R142	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R147	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R148	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R151	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R153	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R211	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R212	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R226	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R228	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R335	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R340	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R341	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R342	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R343	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R505	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R506	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R518	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R520	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R524	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R526	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R528	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R533	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R581	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R586	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R700	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7103	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7109	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7110	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7135	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7136	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7137	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7138	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7139	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7140	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R7141	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000074	R723	R-CHIP	100ohm,5%,1/10W,TP,1608	SA
5	2007-000076	R542	R-CHIP	330ohm,5%,1/10W,TP,1608	SA
5	2007-000076	R544	R-CHIP	330ohm,5%,1/10W,TP,1608	SA
5	2007-000076	R571	R-CHIP	330ohm,5%,1/10W,TP,1608	SA
5	2007-000077	R521	R-CHIP	470ohm,5%,1/10W,TP,1608	SA
5	2007-000078	R155	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R336	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R392	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R502	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R517	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R519	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R523	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R525	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R527	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R532	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R572	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R580	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R584	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R585	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R701	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R708	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R7132	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R7133	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000078	R757	R-CHIP	1Kohm,5%,1/10W,TP,1608	SA
5	2007-000081	R111	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000082	R765	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R129	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R130	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R131	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R348	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R371	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2007-000084	R391	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R393	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R507	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R508	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R509	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R543	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R702	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R7142	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000084	R781	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	SA
5	2007-000087	R743	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	SA
5	2007-000087	R744	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	SA
5	2007-000087	R745	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R103	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R104	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R116	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R121	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R141	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R144	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R145	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R306	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R307	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R358	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R378	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R379	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R381	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R535	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R536	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R545	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R553	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R556	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R560	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R563	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R564	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R566	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R567	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R582	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R583	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R615	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R616	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R617	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R623	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R624	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R625	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R626	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R7130	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000090	R7143	R-CHIP	10Kohm,5%,1/10W,TP,1608	SA
5	2007-000097	R541	R-CHIP	47Kohm,5%,1/10W,TP,1608	SA
5	2007-000097	R557	R-CHIP	47Kohm,5%,1/10W,TP,1608	SA
5	2007-000097	R559	R-CHIP	47Kohm,5%,1/10W,TP,1608	SA
5	2007-000097	R562	R-CHIP	47Kohm,5%,1/10W,TP,1608	SA
5	2007-000097	R574	R-CHIP	47Kohm,5%,1/10W,TP,1608	SA
5	2007-000098	R548	R-CHIP	56Kohm,5%,1/10W,TP,1608	SA
5	2007-000098	R549	R-CHIP	56Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	C706	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R612	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R613	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R614	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R620	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R627	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000102	R7131	R-CHIP	100Kohm,5%,1/10W,TP,1608	SA
5	2007-000103	R569	R-CHIP	120Kohm,5%,1/10W,TP,1608	SA
5	2007-000118	R301	R-CHIP	390ohm,5%,1/10W,TP,1608	SA
5	2007-000402	R531	R-CHIP	150ohm,5%,1/10W,TP,1608	SA
5	2007-000458	R522	R-CHIP	18Kohm,5%,1/10W,TP,1608	SA
5	2007-000539	R621	R-CHIP	200ohm,5%,1/10W,TP,1608	SA
5	2007-000616	R568	R-CHIP	24Kohm,5%,1/10W,TP,1608	SA
5	2007-000869	R550	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	SA
5	2007-000869	R551	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	SA
5	2007-000869	R7107	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	SA
5	2007-000869	R7108	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	SA
5	2007-000913	R577	R-CHIP	43Kohm,5%,1/10W,TP,1608	SA
5	2007-000965	R576	R-CHIP	5.1Kohm,5%,1/10W,TP,1608	SA
5	2007-000979	R601	R-CHIP	5.6Kohm,1%,1/10W,TP,1608	SA
5	2007-001002	R149	R-CHIP	510ohm,5%,1/10W,TP,1608	SA
5	2007-001164	R108	R-CHIP	75ohm,1%,1/10W,TP,1608	SA
5	2007-001164	R109	R-CHIP	75ohm,1%,1/10W,TP,1608	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2007-001164	R122	R-CHIP	75ohm,1%,1/10W,TP,1608	SA
5	2007-001167	R345	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R346	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R347	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R529	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R768	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R769	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R770	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R771	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R772	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R773	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R774	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001167	R775	R-CHIP	75ohm,5%,1/10W,TP,1608	SA
5	2007-001179	R575	R-CHIP	8.2Kohm,5%,1/10W,TP,1608	SA
5	2007-001179	R703	R-CHIP	8.2Kohm,5%,1/10W,TP,1608	SA
5	2007-007852	R534	R-CHIP	140ohm,1%,1/10W,TP,1608	SA
5	2011-000881	RA301	R-NET	33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6x0.5mm	SA
5	2011-000881	RA302	R-NET	33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6x0.5mm	SA
5	2011-000881	RA303	R-NET	33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6x0.5mm	SA
5	2203-000140	C505	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C506	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C507	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C508	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C517	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C518	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C521	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C522	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C528	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000140	C529	C-CER,CHIP	1.5nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000189	C105	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C106	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C107	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C110	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C111	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C112	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C208	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C209	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C504	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C540	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C541	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C542	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C543	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C545	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C547	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C557	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C567	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C568	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C569	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C603	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C606	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C628	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C629	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C632	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C633	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C723	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C730	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C731	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C733	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C740	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C741	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C742	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C743	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C744	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C745	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C746	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C758	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C759	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C760	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C763	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C765	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C766	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000189	C767	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608,	SA
5	2203-000236	C102	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	SA
5	2203-000236	C114	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	SA
5	2203-000236	C608	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	SA
5	2203-000257	C527	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2203-000257	C534	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C570	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C576	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C600	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C642	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C700	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000257	C705	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	SA
5	2203-000440	C352	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C536	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C537	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C571	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C572	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C728	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C729	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C737	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C739	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C761	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000440	C768	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608,-	SA
5	2203-000552	C707	C-CER,CHIP	0.02NF,5%,50V,C0G,TP,1608	SA
5	2203-000552	C708	C-CER,CHIP	0.02NF,5%,50V,C0G,TP,1608	SA
5	2203-000626	C101	C-CER,CHIP	0.022nF,5%,50V,C0G,TP,1608	SA
5	2203-000626	C367	C-CER,CHIP	0.022nF,5%,50V,C0G,TP,1608	SA
5	2203-000626	C368	C-CER,CHIP	0.022nF,5%,50V,C0G,TP,1608	SA
5	2203-000626	C735	C-CER,CHIP	0.022nF,5%,50V,C0G,TP,1608	SA
5	2203-000626	C736	C-CER,CHIP	0.022nF,5%,50V,C0G,TP,1608	SA
5	2203-000903	C103	C-CER,CHIP	0.0047NF,0.25PF,50V,C0G,TP,1608	SA
5	2203-000903	C104	C-CER,CHIP	0.0047NF,0.25PF,50V,C0G,TP,1608	SA
5	2203-000903	C115	C-CER,CHIP	0.0047NF,0.25PF,50V,C0G,TP,1608	SA
5	2203-000903	C378	C-CER,CHIP	0.0047NF,0.25PF,50V,C0G,TP,1608	SA
5	2203-000972	C350	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-000972	C351	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-000972	C353	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-000972	C749	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-000972	C750	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-000972	C751	C-CER,CHIP	47nF,10%,16V,X7R,TP,1608	SA
5	2203-001071	C204	C-CER,CHIP	0.056NF,5%,50V,C0G,TP,1608	SA
5	2203-001222	C601	C-CER,CHIP	0.82NF,10%,50V,X7R,TP,1608	SA
5	2203-001607	C559	C-CER,CHIP	0.22nF,5%,50V,NP0,-,1608	SA
5	2203-005005	C100	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005005	C341	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005005	C344	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005005	C355	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005005	C356	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005005	C381	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	SA
5	2203-005065	C108	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C109	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C113	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C201	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C202	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C203	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C205	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C206	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C300	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C301	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C302	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C303	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C304	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C305	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C306	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C307	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C308	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C309	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C311	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C312	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C313	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C314	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C315	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C316	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C317	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C318	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C319	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C320	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C321	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C322	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C323	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C370	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2203-005065	C371	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C372	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C373	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C374	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C375	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C376	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C377	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C379	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C380	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C502	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C503	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C509	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C551	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C560	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C562	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C564	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C577	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C578	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C605	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C610	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C611	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C623	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C625	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C701	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C702	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C703	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C704	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C709	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C710	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C711	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C712	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C713	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C714	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C715	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C716	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C717	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005065	C732	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,-,1608	SA
5	2203-005261	C549	C-CER,CHIP	1000nF,10%,25V,X7R,-,3216	SA
5	2203-005261	C566	C-CER,CHIP	1000nF,10%,25V,X7R,-,3216	SA
5	2203-005437	C546	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	SA
5	2203-006170	C531	C-CER,CHIP	220NF,10%,16V,X7R,TP,1608	SA
5	2203-006170	C574	C-CER,CHIP	220NF,10%,16V,X7R,TP,1608	SA
5	2402-001080	C762	C-AL,SMD	47uF,20%,50V,WT,TP,8x10mm	SNA
5	2402-001080	C764	C-AL,SMD	47uF,20%,50V,WT,TP,8x10mm	SNA
5	2402-001081	C631	C-AL,SMD	100uF,20%,25V,WT,TP,8.3x8.3x10	SA
5	2402-001081	C638	C-AL,SMD	100uF,20%,25V,WT,TP,8.3x8.3x10	SA
5	2402-001081	C640	C-AL,SMD	100uF,20%,25V,WT,TP,8.3x8.3x10	SA
5	2402-001081	C641	C-AL,SMD	100uF,20%,25V,WT,TP,8.3x8.3x10	SA
5	2402-001086	C604	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001086	C607	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001086	C624	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001086	C627	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001086	C634	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001086	C635	C-AL,SMD	100UF,20%,16V,WT,TP,6.6X6.6X5.3	SA
5	2402-001128	C513	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	SA
5	2402-001128	C555	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	SA
5	2402-001128	C558	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	SA
5	2402-001158	C554	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	SA
5	2402-001158	C556	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	SA
5	2402-001158	C561	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	SA
5	2402-001158	C563	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	SA
5	2402-001160	C51	C-AL,SMD	330UF,20%,16V,WT,TP,1008	SA
5	2402-001176	C510	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C511	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C512	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C514	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C515	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C516	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C590	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C591	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C592	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C593	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001176	C734	C-AL,SMD	4.7UF,20%,25V,WT,TP,4X5.4MM	SA
5	2402-001183	C523	C-AL,SMD	22UF,20%,16V,WT,TP,5.3X5.3X6MM	SA
5	2402-001183	C524	C-AL,SMD	22UF,20%,16V,WT,TP,5.3X5.3X6MM	SA
5	2402-001216	C602	C-AL,SMD	470uF,20%,16V,WT,TP,10.3x10.3x10mm	SA

Level	Loc. No.	Code No.	Description	Specification	Remarks
5	2402-001222	C721	C-AL,SMD	3.3UF,20%,50V,HR,TP,4.3X4.3X5.8MM	SNA
5	2402-001226	C565	C-AL,SMD	4.7UF,20%,35V,HR,TP,4.3X4.3X5.8MM	SNA
5	2703-000222	L701	INDUCTOR-SMD	560nH,10%,2012	SA
5	2703-000398	L702	INDUCTOR-SMD	10uH,10%,3225	SA
5	2703-000398	L703	INDUCTOR-SMD	10uH,10%,3225	SA
5	2703-001334	L200	INDUCTOR-SMD	1.5uH,10%,2012	SA
5	2703-001778	L504	INDUCTOR-SMD	3.3uH,20%,3225	SA
5	2703-001778	L505	INDUCTOR-SMD	3.3uH,20%,3225	SA
5	2703-001778	L506	INDUCTOR-SMD	3.3uH,20%,3225	SA
5	2703-001778	L507	INDUCTOR-SMD	3.3uH,20%,3225	SA
5	2801-003667	X300	CRYSTAL-SMD	14.31818MHz,30ppm,28-AAN,16,50ohm,TP	SA
5	2801-004004	X700	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,25ohm,TP	SA
5	3301-001145	FT520	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT521	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT522	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT523	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT600	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT601	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001145	FT701	BEAD-SMD	60ohm,4516,6000mA,TP,70ohm/45MHz,82ohm/760MHz,0.01ohm	SNA
5	3301-001288	BD700	BEAD-SMD	30ohm,1608,400mA,TP,,,0.3ohm	SA
5	3704-000249	IC202_SOCK	SOCKET-IC	32P,PLCC,SN,1.27mm	SA
5	3711-002049	CN201	CONNECTOR-HEADER	BOX,6P,1R,1.25mm,SMD-A,SN	SA
5	3711-005292	CN203	CONNECTOR-HEADER	BOX,3P,1R,2MM,SMD-A,SN,WHT	SA
5	3711-005292	CN502	CONNECTOR-HEADER	BOX,3P,1R,2MM,SMD-A,SN,WHT	SA
5	3711-005472	CN301	CONNECTOR-HEADER	BOX,20P,1R,1.25mm,SMD-A,Sn+Pb,IVR	SA
5	3711-005477	CN501	CONNECTOR-HEADER	BOX,4P,1R,2mm,SMD-A,Sn+Pb,WHT	SA
5	BN09-00008A	IC700	IC MICOM	VCTXYI-D2,MH17WS,144,8.7,20.25,20,8,MQFP,TR,8,0 to +65	SA
5	BN27-00001A	L500	COIL CHOKE	68UH,68UH,10%,5845,0.5OHM,7.3X7.3X3.3MM,REEL	SA
5	BN27-00001A	L501	COIL CHOKE	68UH,68UH,10%,5845,0.5OHM,7.3X7.3X3.3MM,REEL	SA
5	BN27-00001A	L502	COIL CHOKE	68UH,68UH,10%,5845,0.5OHM,7.3X7.3X3.3MM,REEL	SA
5	BN27-00001A	L503	COIL CHOKE	68UH,68UH,10%,5845,0.5OHM,7.3X7.3X3.3MM,REEL	SA
5	BN27-00009A	L600	COIL CHOKE	SMD 12X12X6,EOS,33UH,15%,-0.12 Ω MAX,2A,DR10X5.0MM,18.5TS,12X12X6,1.8MM,1UEW 0.	SA
5	BN27-00017A	L700	COIL CHOKE-SMD	PO5845-330,LT17N2,33uH,10%,0.3ohm,1A,DR5845,35.5Ts,6*5.2*4.5,1.5mm,TP	SA
5	BN41-00513A	MP1.0	PCB MAIN	730MW,FR4,1.0,1.6,234*142*1.6,730MW	SNA
2	BN91-00807J	-	ASSY SHIELD	MH17WS	SNA
3	6003-000117	SH/PAN+M/PCB	SCREW-TAPTITE	BH,+,B,M3,L6,ZPC(YEL),SWRCH18A	SNA
3	6003-000117	SH/PAN+POW/PCB	SCREW-TAPTITE	BH,+,B,M3,L6,ZPC(YEL),SWRCH18A	SNA
3	6003-000117	SH/PAN+SH/PCB	SCREW-TAPTITE	BH,+,B,M3,L6,ZPC(YEL),SWRCH18A	SNA
3	6003-000276	C/F+SH/PAN	SCREW-TAPTITE	BH,+,B,M3,L10,ZPC(YEL),SWCH10	SNA
3	BN39-00519A	CIS	LEAD CONNECTOR	MONTE,UL1061#28,UL/CSA,20P,100MM,#26,12507HS-20,12507HS-20L,BK,1061#28,SJ03-01-6	SA
3	BN44-00116A	CIS	IP BOARD	IP-48135T,MH17WS,3.2mA,8.6mA,48KHZ,4,90V/264VAC,+13V/+5.1V,0 to +50, -20 to~+70,	SNA
3	BN61-01234A	CIS	HOLDER-INVERTER	MATISSE,ABS V0,BK07	SNA
3	BN63-01420A	CIS	SHIELD-PANEL	730MW,SECC,T1.0	SNA

7-2 MH17WS Others

Level	Loc. No.	Code No.	Description	Specification	Remarks
2	BN90-00659K	-	ASSY COVER FRONT	MH17WS	SNA
3	6003-001003	C/F+C/R	SCREW-TAPTITE	BH,+,B,M4,L12,ZPC(BLK),SWRCH18	SNA
3	BN96-01295A	C/F	ASSY COVER P-FRONT	730MW,ABS HB GR70	SNA
2	BN90-00663A	-	ASSY COVER REAR	MH17WS	SNA
3	BN96-01435A	C/R	ASSY STAND P-SET	MH17WS,ABS+BIE	SNA
2	BN91-00567J	-	ASSY LCD	NK17,S4	SNA
3	BN07-00112A	CIS	LCD	LTM170W1-L01,LSA,8BIT,404*258*16.2,16.7M,30,-,-,AMLCD/2 LVDS,-	SA
2	BN91-00801U	-	ASSY CHASSIS	MH17WS	SNA
2	BN92-01071K	-	ASSY P/MATERIAL	MH17WS	SNA
3	6902-000520	P/M	BAG PE	HDPE/NITRON(DOUBLE),T0.015/T0.5(DOUBLE),W700,L700,TRP,28 LANGUAGE,2-	SNA
3	BH69-00457B	P/M	PACKING-PAD BOTTOM	GH15,FOAM,T3.0,930,1000	SNA
3	BH69-40321A	P/M	PACKING-PAD	SW-4,W2155*L140,-,DEC,-,-,-,-,	SNA
3	BH69-40383J	P/M	PACKING-PAD/TOP	CB-SW4,960*760,-,CGE7507	SNA
3	BN68-00129A	P/M	LABEL SHIPPING-00	-,LABEL SHIPPING,ART-PAPER,100G,-,WHT,BLACK,-,-,-	SNA
3	BN69-00140M	P/M	PAD-PALLET COVER	IBM15,SW,800*3540,1295,-,-,-,-,-	SNA
3	BN69-00140V	P/M	PAD-PALLET COVER	RB15AS,SW4,1200,3530,-,-,-,-,-	SNA
3	BN69-00617N	P/M	PALLET-WOODEN	730MW,WOODEN,1240,830,120	SNA
3	BN69-00843A	P/M	CUSHION	730MW,EPS,M50	SNA
2	BN92-01072J	-	ASSY ACCESSORY	MH17WS	SNA
3	BN96-01490D	UNIT/ACCESSORY	ASSY ACCESSORY	MH17WS	SNA
4	3705-001191	ACCESSORY	CONNECTOR-COAXIAL	PAL,ADAPTER(J/P),30mohm,-,-	SA
4	3903-000042	ACCESSORY	CBF-POWER CORD	DT,EU,FP3/YES,IEC320 C13/C14,250/250V,10-16/10A,BLK,1830MM,-,H05VV-F 3X0.75MM^2,	SA
4	4301-000121	ACCESSORY	BATTERY-MN	1.5V,-,AAA,10.5x44.5m,HOLDER	SA
4	6902-000110	ACCESSORY	BAG PE	LDPE,T0.05,L356,W240,TRP,28,2,PE MARK	SNA
4	AA39-00365A	ACCESSORY	CBF IF	CS29M6PF,1P,RCA-HOLDER,1900mm,BLK,RCA,FM-RADIO ANT	SA
4	BH68-70438A	ACCESSORY	CARD-BLOC WARRANTY-09	TFT LCD,BASIC,EU,MOJO,100G,W21	SNA
4	BH68-70448A	ACCESSORY	CARD-01	TFT LCD,SRC,RUSSIA,S/W,120,W210*L120,INSTALL CARD	SNA
4	BN39-00061B	ACCESSORY	CBF SIGNAL-STEREO	MH15NS,1P,UL2851#26,2000mm,PLUG(BLK/GRN),BLACK,STEREO,SJ03-01-418	SA
4	BN39-00244B	ACCESSORY	CBF SIGNAL	MO15PS,15P/15P,20276-N,1830MM,UL20276,BLACK,D-SUB/MALE,DET. TYPE	SA
4	BN59-00434A	ACCESSORY	REMOCON	Manet_Multi,TM79,40,SV-012P,EX,NT/PAL	SA
4	BN96-00832K	ACCESSORY	ASSY MANUAL P-IB+QSG	730MW,SyncMaster,W/W,28Lang,BN59-390K+BH68-376L	SNA
5	BH68-00376L	QUICK_SETUP	MANUAL-02	LCDQUICK SETUP GUIDE,SYNCMASTER,E/F/S/G/P/I..13LANGS,W/W,MOJO100G,298,420	SNA
5	BN59-00390K	IB	S/W DRIVER-00,IB	730MW,W/W,SyncMaster,28Lang	SNA

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8 Block Diagram

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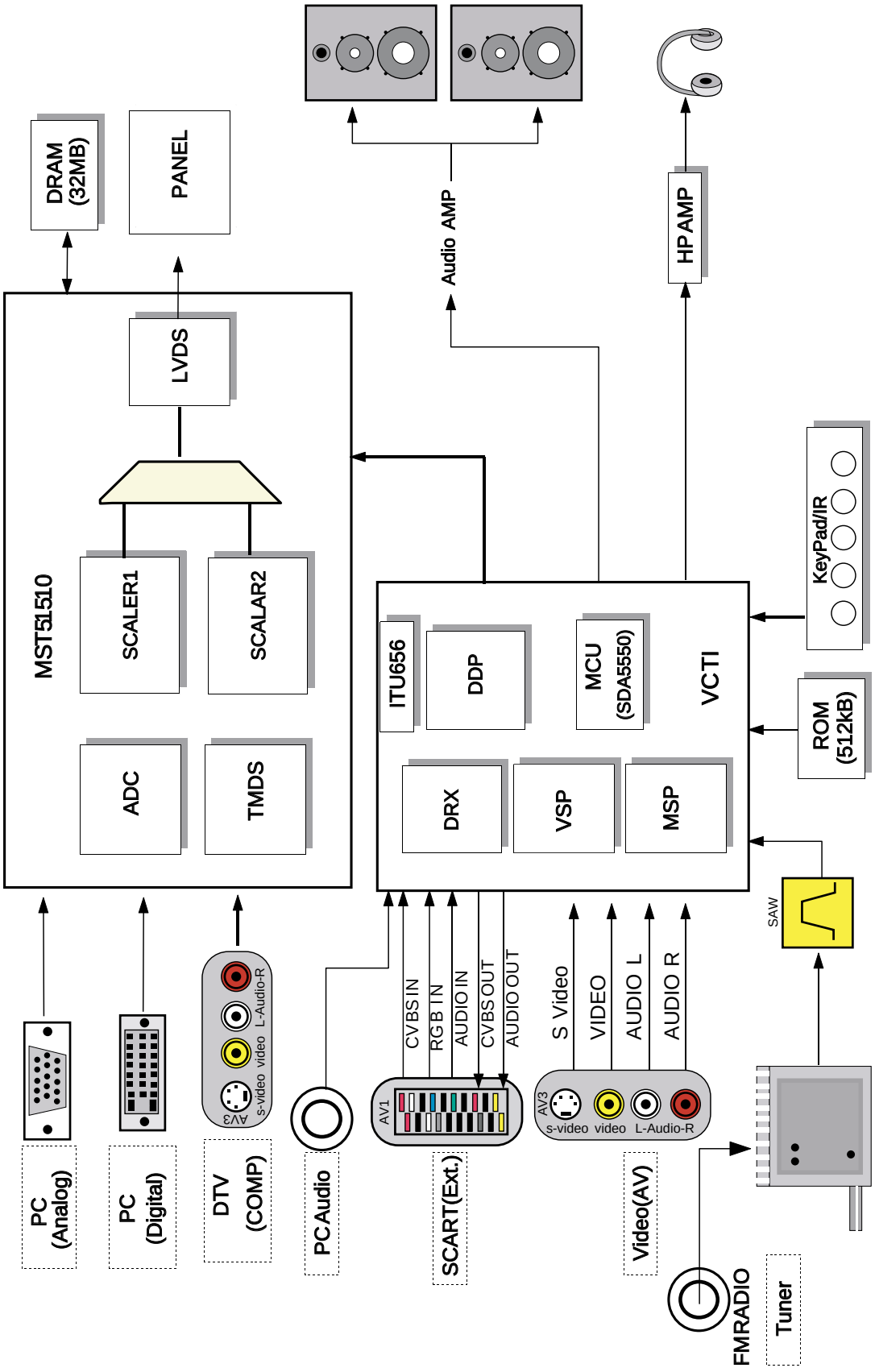

Memo

9 Wiring Diagram

CN501
Speaker-R

4	3	2	1
SROUT-	NC	GND	SROUT+

CN200
to Function CTL

10	9	8	7	6	5	4	3	2	1
LEDGRN	LEDRED	GND	3.3V_MAIN	IRRCVR	GND	KEY_AD1	KEY_AD2	GND	3.3V_MAIN

CN301
to PANEL

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
+3.3V_PANEL	+3.3V_PANEL	GND	GND	RxO0-	RxO0+	GND	RxO1-	RxO1+	GND	RxO2-	RxO2+	GND	RxOC-	RxOC+	GND	RxO3-	RxO3+	GND	NC

CN504
PC Sound

10	9	8	7	6	5	4
PC_ARIN	GND	PC_ALIN	GND	PC_ALIN	PC_ARIN	GND

CN502
Speaker-L

SL OUT +	1
GND	2
SL OUT -	3

CN506
EXIT(RGB)

SCART_AROUT	1
SCART_ARIN	2
SCART_AROUT	3
	4
GND	5
SCART_ARIN	6
SCART_VBIN	7
SCART_AVSW	8
GND	9
NC	10
SCART_VCIN	11
NC	12
GND	13
GND	14
SCART_VRIN	15
SCART_FBLNK	16
GND	17
GND	18
SCART_VOUT	19
SCART_VIN	20
GND	21

CN600
to POWER

1	13V_IN
2	13V_IN
3	GND
4	GND
5	NC
6	NC
7	5V_IN
8	GND
9	BL_EN

CN201
개발용

1	3.3V_MAIN
2	VCT_RXD
3	VCT_TXD
4	GND
5	VCT_RESETQ
6	GND

CN203
개발용

1	GND
2	VCT_SCL
3	VCT_SDA

CN700
TV ANT.

Tuner

TAGC	1
FM_ANT	2
GND	3
VCT_SCL	4
VCT_SDA	5
NC	6
SCART_VOUT	7
NC	8
33V-T	9
IF-2	10
IF-1	11

CN102 to PC(DVI)

24	23	22	21	20	19	18	17	16	15	14	13
NC	GND	RX1+	RX1-	NC	DVI_DDC_DAT	DVI_DDC_CLK	NC	NC	GND	RX2+	RX2-
12	11	10	9	8	7	6	5	4	3	2	1
RXC-	RXC+	GND	NC	NC	GND	RX0+	RX0-	+5V_DDC	CHK_DVI	+5V_DDC	NC

to PC(Analog)
CN101

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
+5V_DDC	DC_VSYNC_IN	DC_HSYNC_IN	+5V_DDC	GND	CHK_DSUB	+5V_IN	GND	GND	GND	GND	GND	BLUE_IN	GREEN_IN2	RED_IN

AV INPUT
CN507

9	8	7	6	5	4	3	2	1
VCR_IN	CHK_VIDEO	GND	VCR_ALIN	VCR_ARIN	GND	VCR_ARIN	VCR_ALIN	GND

S-VIDEO
CN701

6	5	4	3	2	1
GND	CHK_SVIDEO	GND	GND	SVHS_Y IN	SVHS_C IN

Comp. Audio
CN503

6	5	4	3	2	1
DTV_ALIN	DTV_ALIN	GND	DTV_ALIN	DTV_ALIN	GND

Comp. Y,Pb,Pr
CN300

9	8	7	6	5	4	3	2	1
COM_Y	DTV_IDENT	GND	COM_PB	NC	GND	COM_PR	NC	GND

FM radio
CN702

3	2	1
FM_ANT	NC	GND

Headphone
CN505

10	9	8	7	6	5	4
H_SENSE	GND	NC	NC	HPDL	HPDR	GND

Memo

11 Schematic Diagrams

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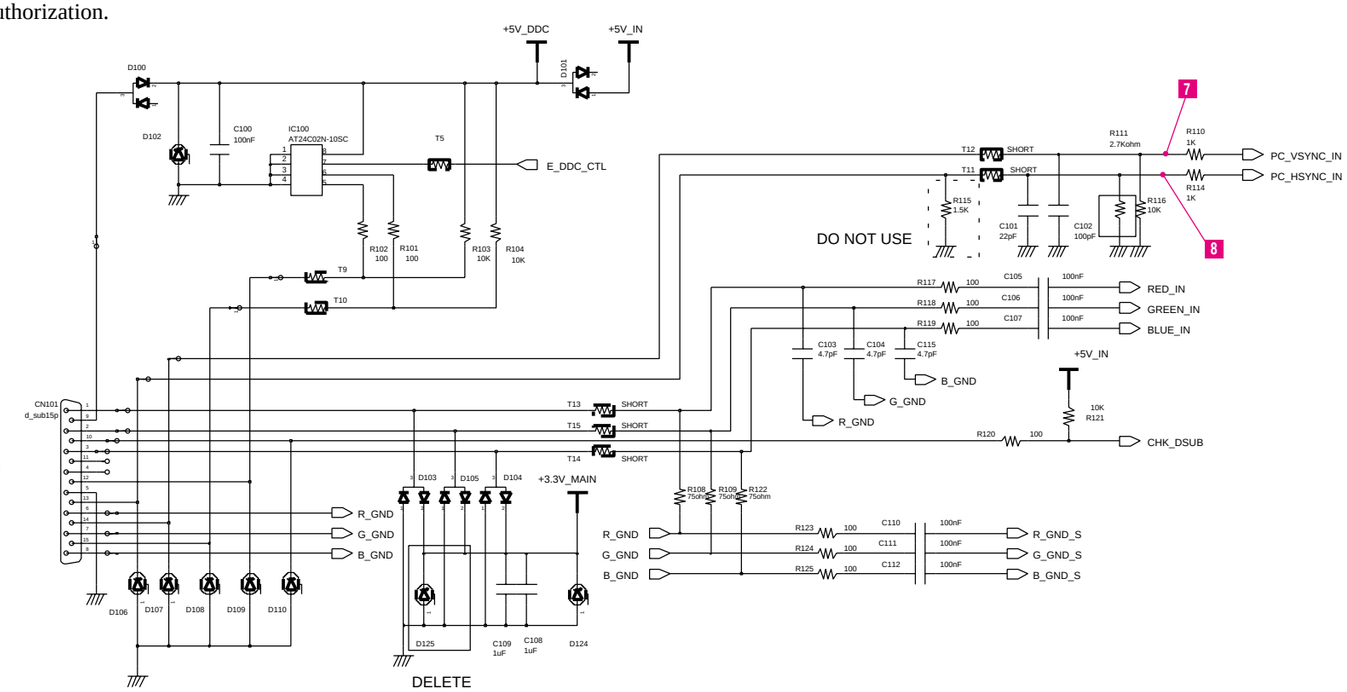
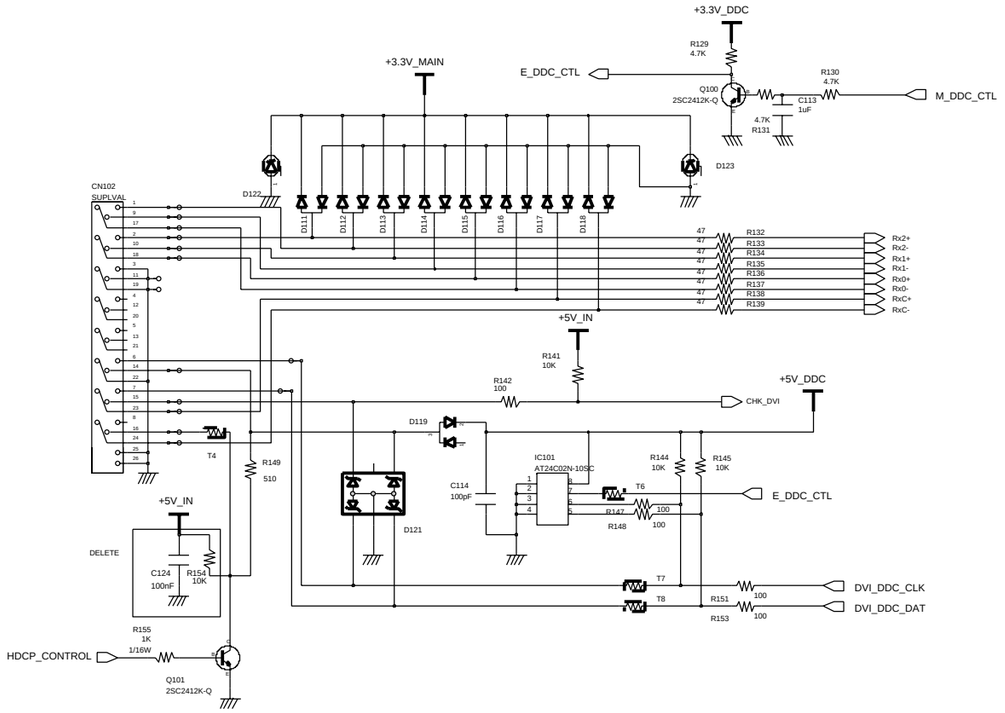
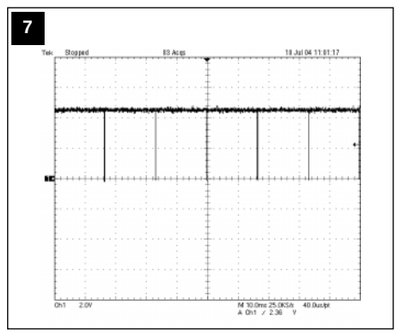
11-1 Part Schematic Diagram

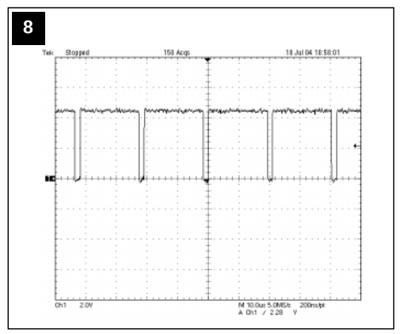
3701-001302
BLUE





11 Schematic Diagrams





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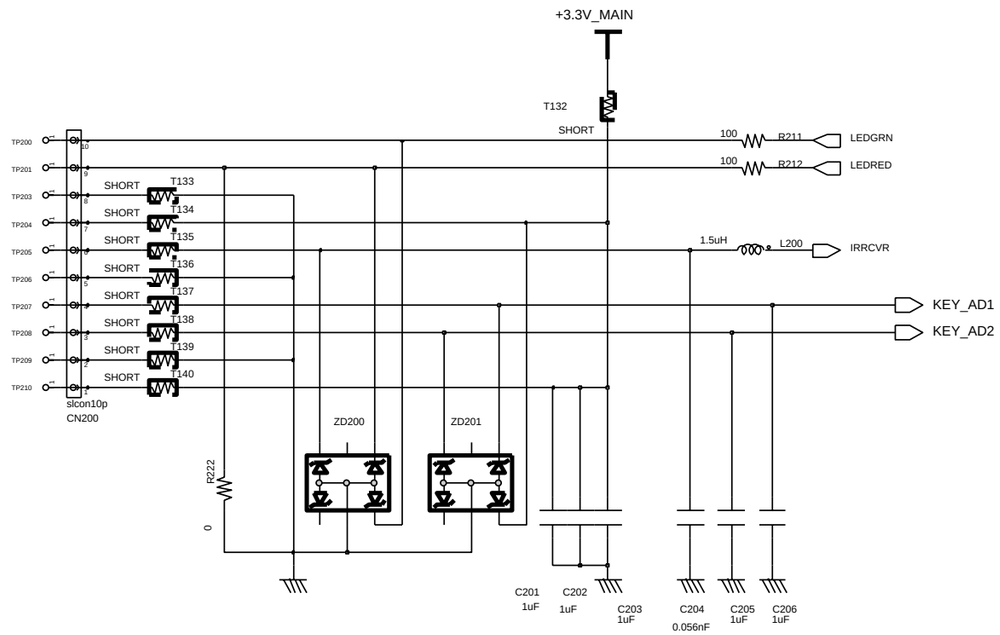
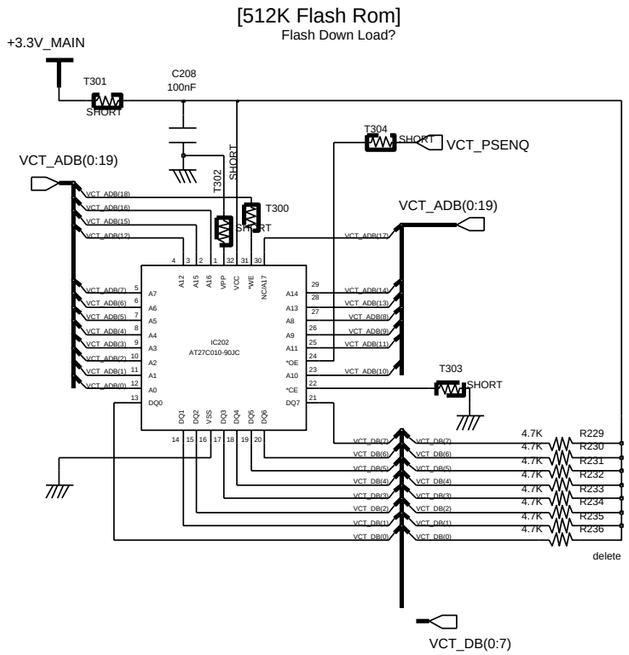
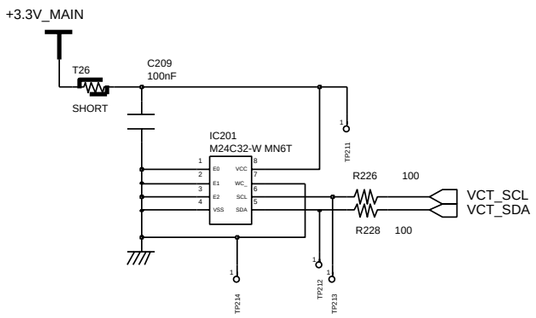
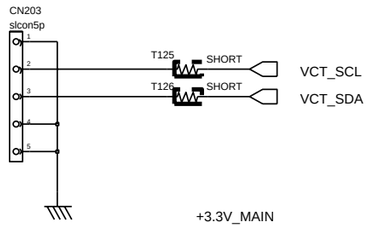
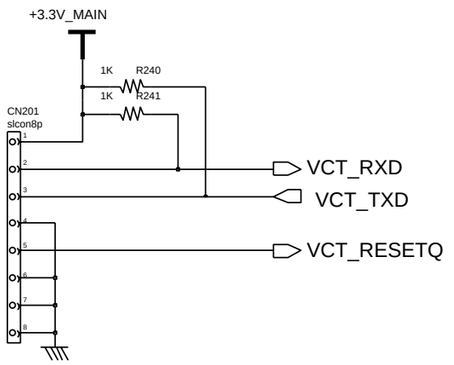
11-2 Part Schematic Diagram











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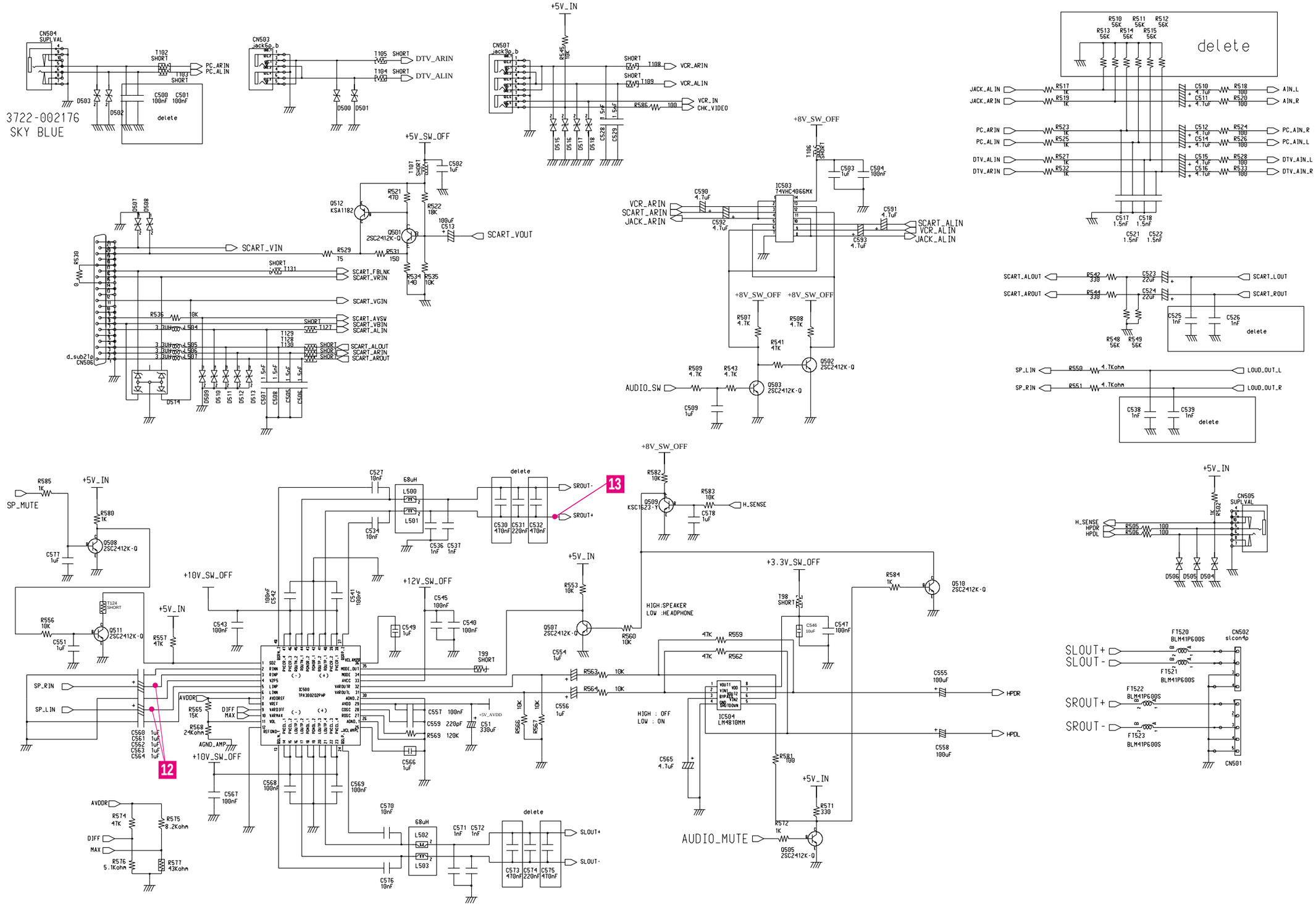
11-3 Part Schematic Diagram



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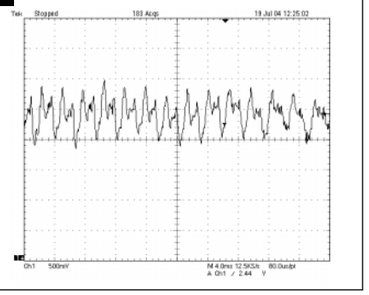
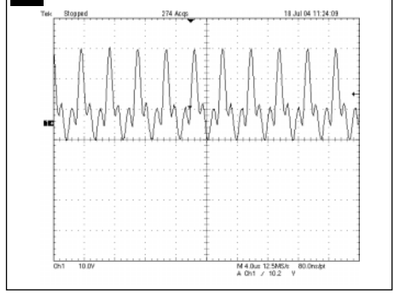

Tek Stopped
183 Acqs
19 Jul 04 12:25:02
Ch1 500mV
M 4.0ms 12.5kS/s 80.0us/pt
A Ch1 ∕ 2.44 V

13


Tek Stopped
274 Acqs
18 Jul 04 11:24:09
Ch1 10.0V
M 4.0us 12.5MS/s 80.0ns/pt
A Ch1 ∕ 10.2 V

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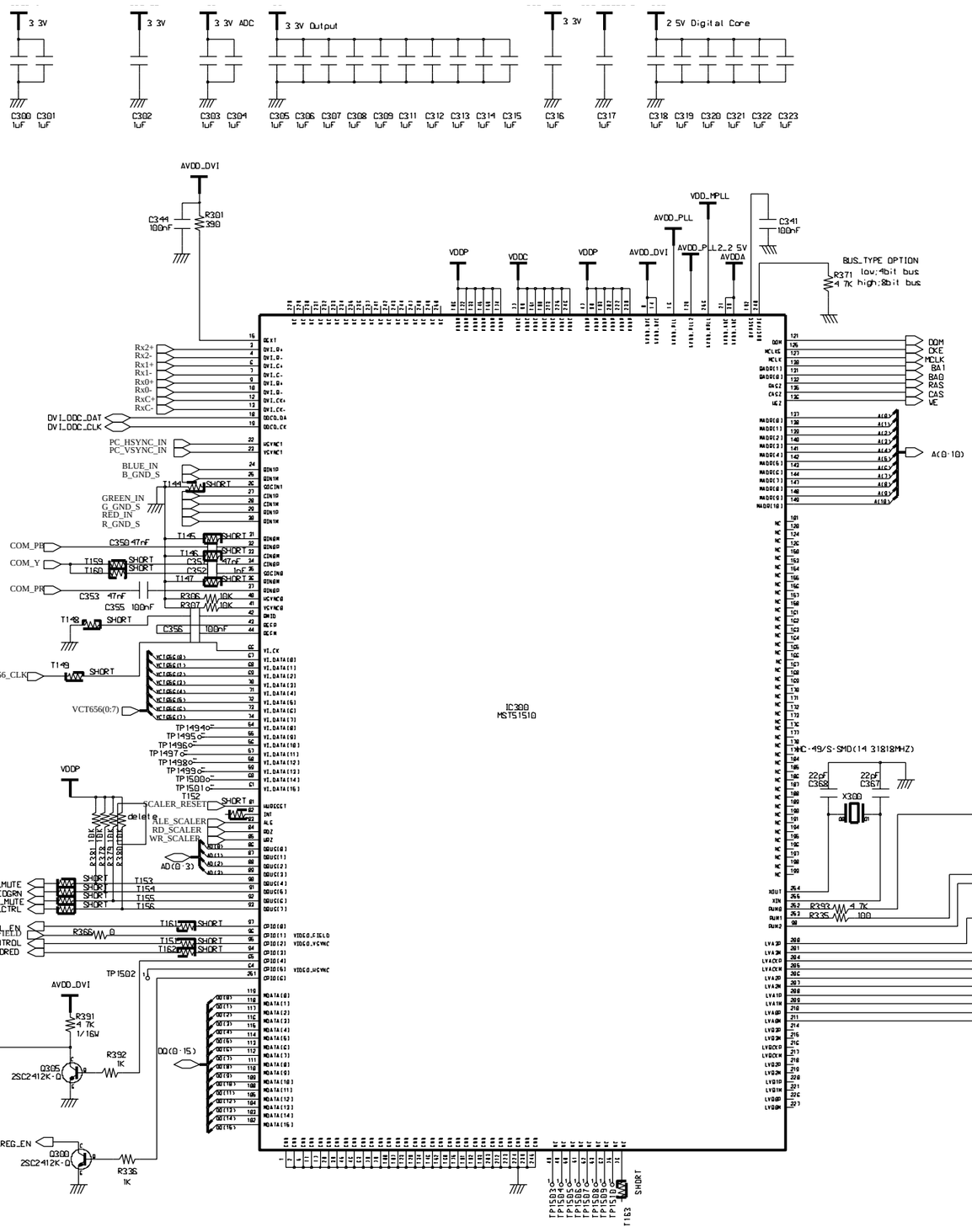
11-4 Part Schematic Diagram



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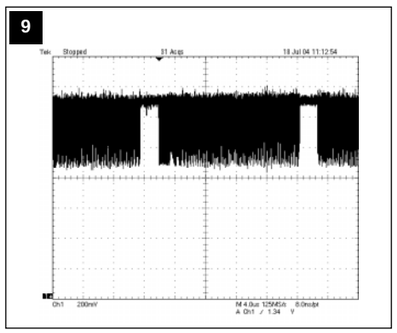
Tek Stopped
31 Acqs
18 Jul 04 11:12:54
Ch1 200mV
M 4.0us 125MS/s 8.0ns/pt
A Ch1 ∕ 1.34 V

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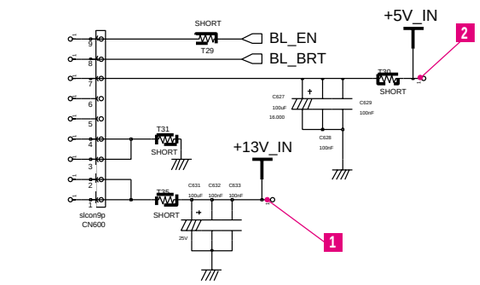
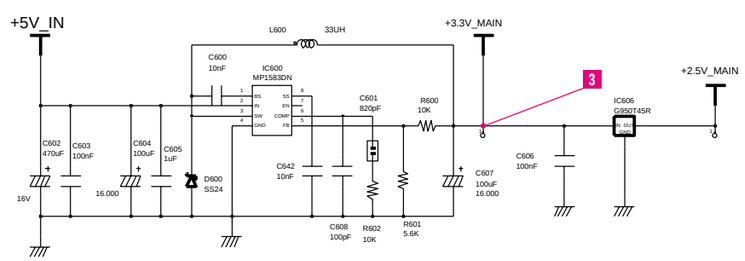
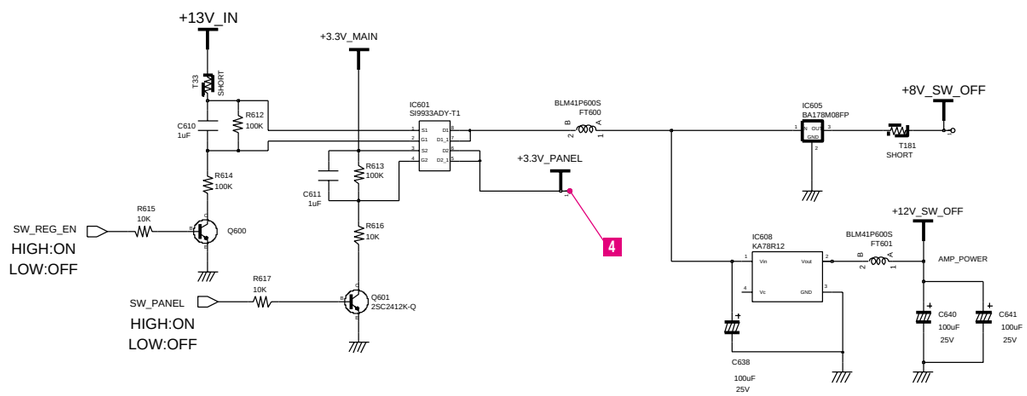
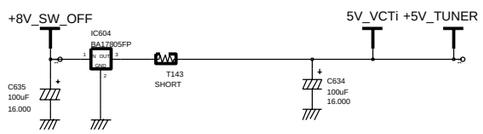
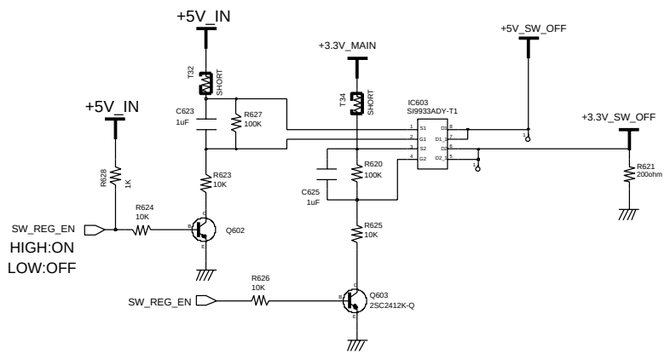
11-5 Part Schematic Diagram

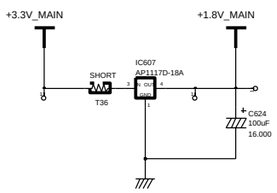












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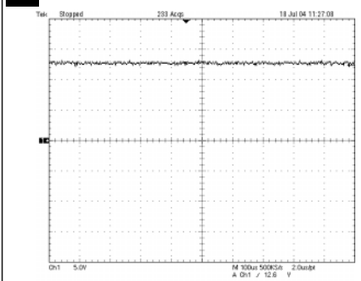
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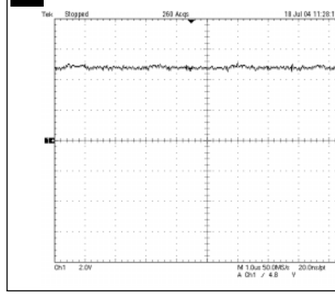
Ch1 5.0V
M 100us 500MS/s 2.0us/pt
A Ch1 ∕ 12.6 V

2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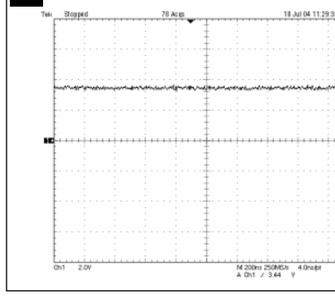
Ch1 2.0V
M 1.0us 50.0MS/s 20.0ns/pt
A Ch1 ∕ 4.8 V

3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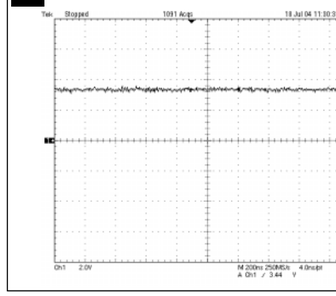
A Ch1 ∕ 3.44 V

4


Tek Stopped 1091 Acqs 18 Jul 04 11:30:31
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A Ch1 ∕ 3.44 V

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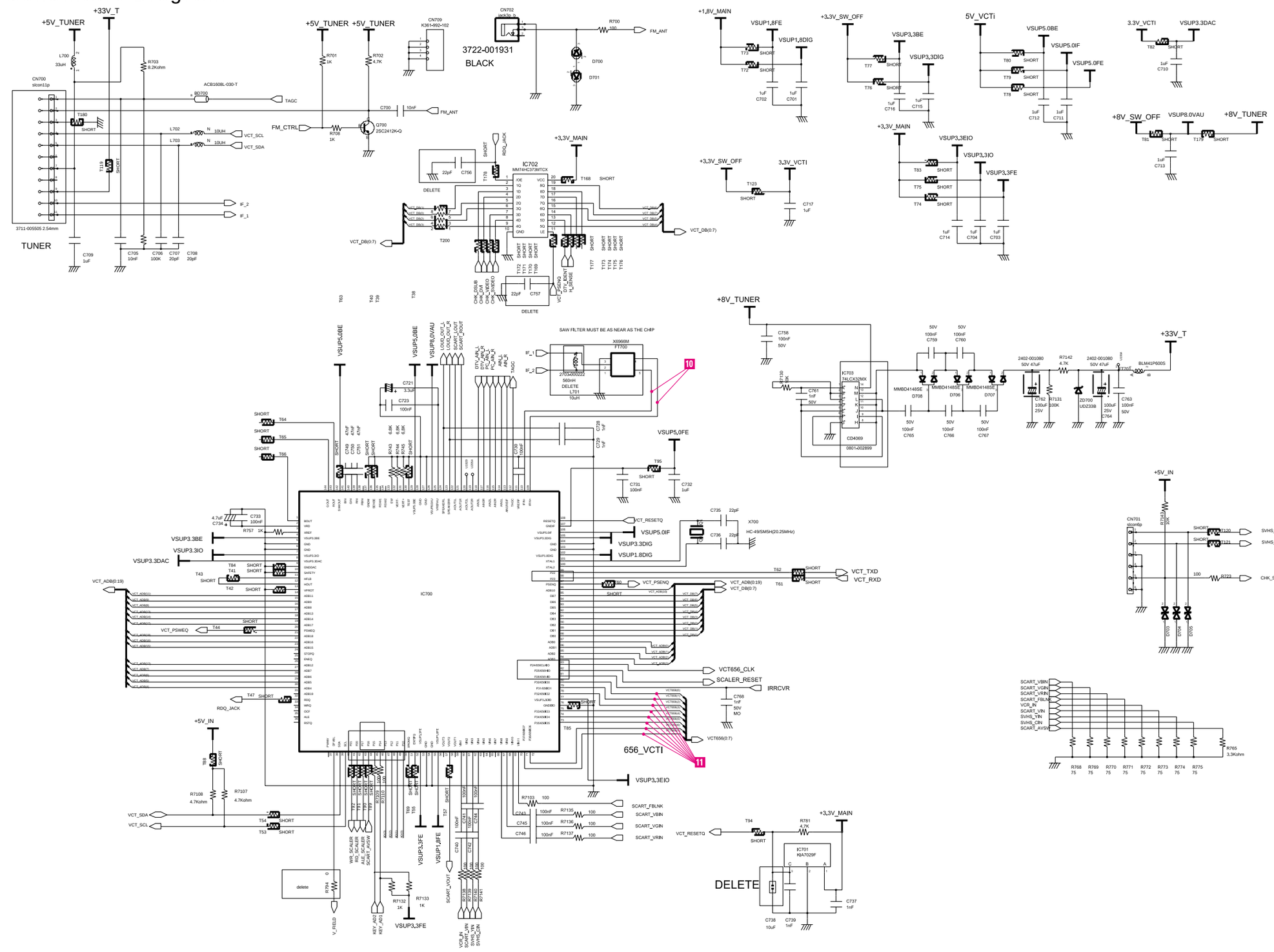
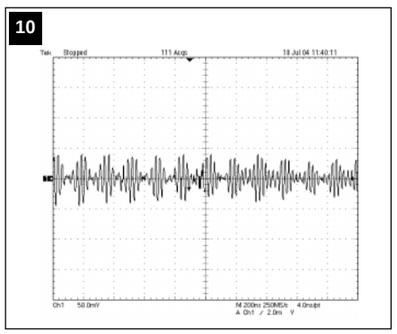
11-6 Part Schematic Diagram



10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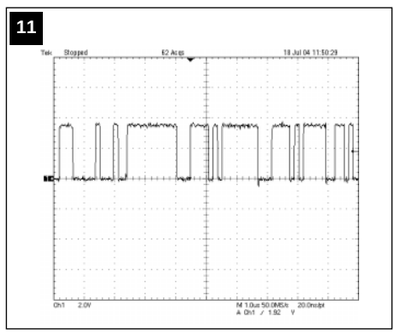
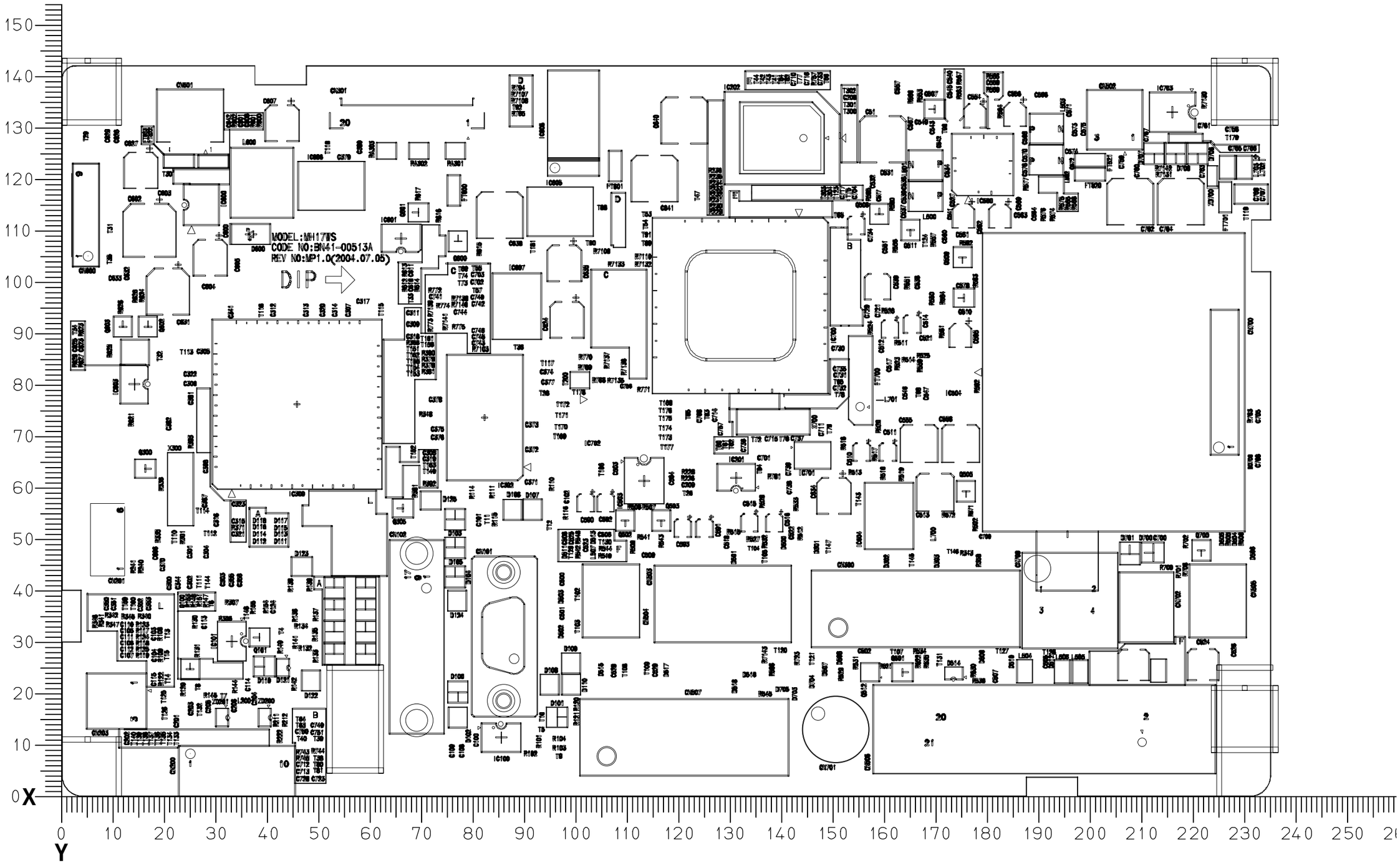
111 Acqs
18 Jul 04 11:40:11
Ch1 50.0mV
M 200ns 250MS/s 4.0ns/pt
A Ch1 ∕ 2.0m V

11


Tek Stopped
62 Acqs
18 Jul 04 11:50:29
Ch1 2.0V
M 1.0us 50.0MS/s 20.0ns/pt
A Ch1 ∕ 1.92 V

Memo

10 PCB 레이아웃



Loc. No.	Description	X	Y
DIODE			
D101	DIODE-SWITCHING	96.2	15.5
D103	DIODE-SWITCHING	76.4	53.85
D104	DIODE-SWITCHING	76.4	42.7
D105	DIODE-SWITCHING	76.4	48.35
D111	DIODE-SWITCHING	59	27.7
D112	DIODE-SWITCHING	52.9	27.7
D113	DIODE-SWITCHING	59	32
D114	DIODE-SWITCHING	52.9	32
D115	DIODE-SWITCHING	59	36.3
D116	DIODE-SWITCHING	52.9	36.3
D117	DIODE-SWITCHING	59	40.6
D118	DIODE-SWITCHING	52.9	40.6
D706	DIODE-SWITCHING	220.2	124.9
D707	DIODE-SWITCHING	211.7	124.9
D708	DIODE-SWITCHING	215.9	124.9
D100	DIODE-ZENER	77	19.6
D102	DIODE-ZENER	77	15.3
D106	DIODE-ZENER	87.6	55.7
D107	DIODE-ZENER	91.5	55.75
D108	DIODE-ZENER	94.8	21.7
D109	DIODE-ZENER	98.95	25.85
D110	DIODE-ZENER	99	21.7
D119	DIODE-ZENER	39.2	24.8
D122	DIODE-ZENER	48.4	22.5
D123	DIODE-ZENER	46.62902	44.66102
D124	DIODE-ZENER	76.8	38
D121	DIODE-ZENER	43	25
D514	DIODE-ZENER	173.4	23.8
ZD200	DIODE-ZENER	39.5	15.3
ZD201	DIODE-ZENER	31.2	15.3
D301	DIODE-TVS	146.7	45.7
D302	DIODE-TVS	161.7	45.7
D303	DIODE-TVS	171.6	45.7
D500	DIODE-TVS	139.8	46.5
D501	DIODE-TVS	132.2	46.5
D502	DIODE-TVS	98.4	32
D503	DIODE-TVS	98.5	38.8
D504	DIODE-TVS	223.35	47.4
D505	DIODE-TVS	219.45	47.4
D506	DIODE-TVS	227.15	47.3
D507	DIODE-TVS	149.7	24.7
D508	DIODE-TVS	152.6	26.8
D509	DIODE-TVS	180.4	26.7
D510	DIODE-TVS	184.5	23.3
D511	DIODE-TVS	200.7	23.1
D512	DIODE-TVS	191.8	23.4
D513	DIODE-TVS	213.5	28.3
D515	DIODE-TVS	104.9	21.7
D516	DIODE-TVS	134.4	21.7
D517	DIODE-TVS	117.4	21.7
D518	DIODE-TVS	132.2	21.7
D703	DIODE-TVS	141.7	22.8
D704	DIODE-TVS	144.2	22.7
D705	DIODE-TVS	139.7	22.9
D600	DIODE-RECTIFIER	36.7	109.3
D700	DIODE-ZENER	209.8	48.3
D701	DIODE-ZENER	214.3	48.55
ZD700	DIODE-ZENER	217.9	119.5
IC			
IC700	IC MICOM	131.9	95.4
IC300	IC-LCD CONTROLLER	45.7	76.2
IC504	IC-AUDIO AMP	173.3	83.4
IC302	IC-DRAM	82.2	73.6
IC702	IC-CMOS LOGIC	107	74.2
IC500	IC-AUDIO AMP	179	122.8
IC607	IC-POSI.FIXED REG.	88.44626	95.26304
IC605	IC-POSI.FIXED REG.	96.85475	113.67753
IC606	IC-POSI.FIXED REG.	52.3671	118.68402
IC604	IC-POSI.FIXED REG.	160.8	54.5
IC608	IC-POSI.ADJUST REG.	100.02426	122.4548
IC600	IC-SWITCH VOL. REG.	27.1	115
IC701	IC-VOL. DETECTOR	146.1	66.3
IC100	IC-EEPROM	85.4	11.4
IC101	IC-EEPROM	33	30.1
IC201	IC-EEPROM	131.1	61.9
IC202	IC-EPROM	140	128
IC202_SOCK	SOCKET-IC	140	128
IC503	IC-CMOS LOGIC	113.2	61.3
IC703	IC-CMOS LOGIC	213.2	133
IC601	FET-SILICON	65.9	108.4
IC603	FET-SILICON	14.1	80.1
TRANSISTOR			
Q100	TR-SMALL SIGNAL	24.9	24.7
Q101	TR-SMALL SIGNAL	38.4	30.9
Q300	TR-SMALL SIGNAL	16.2	63.7
Q305	TR-SMALL SIGNAL	66.3	56
Q501	TR-SMALL SIGNAL	163.4	24.1
Q502	TR-SMALL SIGNAL	109.5	53.6
Q503	TR-SMALL SIGNAL	116.5	53.6
Q505	TR-SMALL SIGNAL	175.1	59.3
Q507	TR-SMALL SIGNAL	169.7	133.6
Q508	TR-SMALL SIGNAL	158.9	113.2
Q510	TR-SMALL SIGNAL	175.4	96.9
Q511	TR-SMALL SIGNAL	165	110.1
Q600	TR-SMALL SIGNAL	77	107.9
Q601	TR-SMALL SIGNAL	69.3	113.5
Q602	TR-SMALL SIGNAL	16.7	91.3
Q603	TR-SMALL SIGNAL	11.8	91.3
Q700	TR-SMALL SIGNAL	219.9	112.9
Q509	TR-SMALL SIGNAL	175.1	104.8
Q512	TR-SMALL SIGNAL	0	0